The Education Digest

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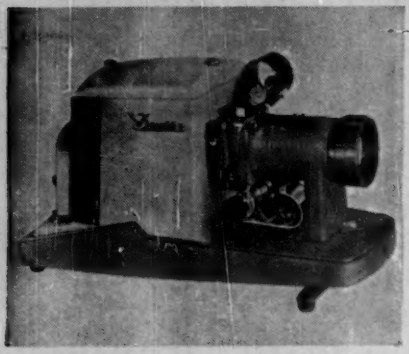

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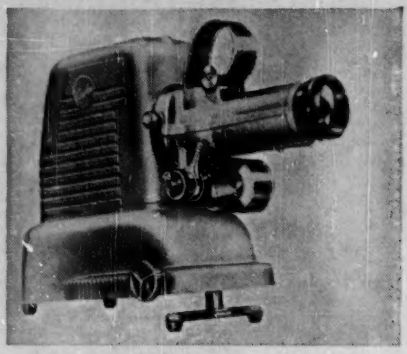

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Should Local Control of Education Continue?

Four Myths Cripple Our Schools

Myron Lieberman

In The Nation

THE most important educational trend in the 1960's is likely to be the decline of local control of education. Such a development is long overdue. Public education in the United States has been strangled for more than a century by the myth that local control is a good thing. National survival now requires educational policies and programs which are not subject to local veto. This means that in the long run we shall be forced also to abolish state control of education, since from a national standpoint state control is only an attenuated version of local control.

Our present system cannot be justified in the light of the mobile and interdependent nature of our society. A vast majority of our people eventually move away from the school district and state which carried the responsibility for their elementary and secondary education. On the average every American moves to a different state two times during his life. Thus it hardly makes sense to contend that the citizens of one state have no legitimate right to insist on an adequate education for the children in other states.

Myron Lieberman teaches in the Graduate School of Education, Yeshiva University, New York, and is the author of Education as a Profession. *Reported from* The Nation, *CLXXXVII (February* 28, 1959), 179–183.

Like racial segregation, local control of education is based on myths whose sun has now set. Particular individuals may continue to accept them for a long time, but our society would be commiting suicide by doing so. The most important of the myths are these:

1. *The myth that local control of education, with perhaps a few concessions made to state control, is one of the important safeguards of educational freedom and of our free society.*

Our present system of local control is far more conducive to totali-

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tarian education and to a totalitarian society than a national system would be. I know that this assertion seems absurd to many. But look at it this way. In most states, the purposes and the content of education are left to local school boards to determine. Undoubtedly, there are constitutional limits to the purposes for which communities may operate public schools. However, these limits have never been spelled out, and great latitude is left to the communities. Under these circumstances the predominate groups in each community tend to set educational goals which accord with their particular religious, political, economic, or social points of view. As a practical matter, therefore, our present system results in the same kind of intellectual protectionism that characterizes schools in totalitarian countries.

PROTECT SACRED COWS

What is crucial is that at the local level it is relatively easy for a preponderant group to enforce a policy of intellectual protectionism for its sacred cows. Thus, the white majorities in Southern communities exclude instruction that is critical of racial segregation. Communities in which fundamentalist sects predominate exclude school instruction in evolution. Some communities have prohibited the study of the U. N. or of Unesco. Ours is a heterogeneous country, but in most communities the predominate racial, religious, economic, or political groups are able to veto whatever in the school program displeases them.

Looking at our system as a whole and noting the existence of public schools teaching diverse doctrines, one might infer that our schools are free. We do not readily recognize the totalitarianism implicit in local control simply because not all schools protect the same dogmas. Nonetheless, a diversity of schools based on intellectual protectionism for different dogmas does not constitute a "democratic school system"—not, at least, if "democratic" refers to the education provided rather than to the legal structure which facilitates a variety of one-sided educational programs.

2. *The myth that public education was not made a federal responsibility in the Constitution because the founding fathers feared the potentialities for dictatorship in a federal school system.*

Actually, education was not included as a federal function in the Constitution because the idea of free, public education had not even occurred to the founding fathers. Our present decentralized school system was not an inspired stroke of genius, but a historical accident. Our schools have never been an important foundation of our free society. Our freedom *is* partly due to a separation of powers which enables us to transact public business reasonably well while simultaneously avoiding excessive subjection to government officials. Perhaps for this reason, we tend to re-

gard the diffusion of power over our schools as an essential element of our free society. But adherence to a general principle that we must avoid excessive concentration of power does not automatically justify every separation or diffusion. Everything depends on the circumstances—what powers are involved, who is to wield them, and so on.

Because a national system of educational controls is more likely to broaden the purposes of education and to preserve the professional autonomy of teachers, it is much more likely to provide a truly liberal education than a multitude of totalitarian systems under local control. It is a striking fact that in England, which has a national system of education, teachers are opposed to local control precisely because they fear that such control would undermine their academic freedom. Meanwhile, teachers in the United States continue to act as if local control must be maintained inviolate lest academic freedom (which they do not possess) be imperiled.

3. *The myth that local control of education is a boon to educational research and experimentation.*

We have 49 state school systems, each free to try something different. This is supposed to make for progress since each school system is not only free to try something new, but also to benefit from the experience of others. There is no doubt that some change for the better occurs this way. Nevertheless, the enormous decentralization cannot be justified on this ground. The different schools do not constitute experiments except in the loosest sense of the word. They do not operate under conditions carefully controlled for purposes of analysis and comparison; they just operate.

Moreover, much of the experience of different systems is valuable only on the premise that education should be a state or local responsibility. A school board may indeed be interested in how another community put over a school-bond campaign. However, if the funds came from the federal government, the experience of a particular school system in raising money would be academic. The truth is that local control of education has obstructed rather than facilitated educational research. By and large, only large, urban systems allocate funds to research—and when they do so, the research is generally limited to local problems.

The broad assumption in arguments against a national school system seems to be that centralized administration is necessarily nonexperimental or that it necessarily insists on uniformity down to every detail. Actually, several federal agencies subsidize programs of research which dwarf anything we have ever seen in education.

FINANCIAL MYTH

4. *The myth that state governments and local school districts have the financial resources to support an adequate educational system.*

Under our present system of financing education, the states and local communities supply over 95 percent of funds for public education. There are several reasons why this structure is not working and can never be made to work. To cite but one, some states have four to five times as much taxable wealth, on the average, as other states. The differences between school districts are even greater.

It needs to be considered also that when local tax rates must be raised for the better support of schools, many high-income persons and corporations may move. This is why it is often fallacious to criticize states and communities for not raising taxes; if they did so, they would lose people and businesses to areas less concerned about education. The fact that a federal tax cannot be evaded at the expense of children in a particular school district is one of the most compelling reasons why we must move toward an educational system financed by the federal government.

Still another factor makes it very unlikely that an adequate educational system could be financed without massive federal support. School districts have been forced to raise most of their funds by means of the property tax, the levying of which—unlike most other taxes—must usually be submitted to popular vote. As is usual, people who are badly hurt by a substantial tax increase are more effective politically than the diffuse majority which benefits. The result is that an increasing number of bond issues for school funds are being defeated in communities sympathetic to public education. Here is some indication of the rising, and often justified, tide of resentment against such discriminatory taxation.

The need for federal support of public education, if not for a federal system, is also related to the way in which the federal government supports noneducational activities—the highway program, for example. The federal government will spend $9 for every dollar appropriated by the state governments. Obviously, this will result in a bigger share of the state dollar being spent on highways. Will this be at the expense of education? The only way that education can complete for funds, *even at the state level,* is for the federal government to assume a much bigger share of the educational budget.

Intellectually, local control of education is already a corpse. The only question is how long these and other myths can prolong their zombie-like existence in a highly interdependent society. Somehow, we might just stagger through the last half of the twentieth century with an eighteenth-century educational structure. The indications are, however, that the practical sense of the American people will be forced to assert itself, and that they will develop a centralized school system while simultaneously reaffirming their faith that any such system is un-American. •

Some Results from the

Hagerstown Experiment—After Two Years

LEO E. BUEHRING

In The Nation's Schools

SO far so good! That is the inference regarding educational television one gathers from William M. Brish, superintendent of schools and chief administrator of the much publicized experiment with closed-circuit telecasts in the public schools of Washington County, Maryland. Now directing the third year of the five-year project involving the broad-scale use of television for direct instruction in all basic subject areas, Superintendent Brish avoids premature predictions as to the role that educational television eventually will play in American education.

The development of the "Hagerstown Experiment" is a story in itself. We will explain here only that the entire operation is under the control of the board of education of Washington County. The Chesapeake and Potomac Telephone Company—with technical advice of Bell Laboratories—developed the system of telecast communication with no wire rental charge. The Radio-Electronics-Television Manufacturers Association procured all the equipment, including about 600 receivers for the classrooms. The Fund for the Advancement of Education has underwritten the cost of designing, training for, and operating the project. It is estimated that the total "outside" outlay for the five-year period may approximate one million dollars. The equipment bill to date is $250,000.

Leo E. Buehring is Feature Editor of The Nation's Schools. *Reported from* The Nation's Schools, *LXIII (February* 1959), 83–86.

Closed-circuit telecasting began with eight Hagerstown schools and eventually is to be extended to include all 48 schools. At the close of 1958, there were in the circuit all five high schools and 30 elementary schools, with an enrolment of 17,000.

On Superintendent Brish's desk at Hagerstown is a brilliant red-lacquered and gilded mousetrap. This simple desk piece serves as a vivid reminder of the path thousands of educators and others have, indeed, been beating to the board of education building since September, 1956.

Most visitors are in search of quantitative and measurable statistics. The educators among them are in a hurry to be shown evidence that will settle the ETV question once and for all. The fabricators are experiencing difficulty concealing their eagerness to proclaim the efficacy of the use of electronic equipment in the instructional process. Both ask:

How can the most effective use be made of television for instructional purposes? Will it reduce the number of needed teachers? Will it require more or less classroom space? Can larger groups be instructed effectively in this electronic manner?

In response to all these queries comes the same answer: "We don't know yet." And it is quite clear to the inquirer that, until Superintendent Brish and his staff do know, they do not intend to guess. The final evaluation cannot be made until the conclusion of the experiment, some three years hence, they have stressed.

SOME RESULTS

As to the specific Hagerstown program, the visitor receives answers that are direct and categorical: Standardized tests show achievement results are consistently higher in television classes than in controlled classes taught by conventional methods. Also, they are higher than they were in the years when television was not used. This is especially true in the field of mathematics, Mr. Brish says, where television has emphasized underlying principles on which mathematics is based.

In more general terms Washington County educators point also to qualitative returns. They are quite ready to acknowledge that during the last two years most teachers have done a better job; students have learned better and remembered longer; the program has made it possible to redeploy personnel, equipment, and funds.

But Mr. Brish is awaiting all the evidence. He will not attempt to explain now *why* the results have been achieved. Repeatedly he is asking himself: To what extent are these achievements the direct result of the educational-television program? To what degree have the experimental setting, the newness, excitement, and glamour contributed? Can the results be sustained indefinitely?

TWO-YEAR CONCLUSIONS

While Superintendent Brish and his staff refrain from making any general forecasts based on their two years of experience with this experiment in educational television, a factual two-year review has just been published. This report is not a blueprint for the television school of tomorrow, but it does set forth certain helpful observations and conclusions regarding the effective use of educational television. The review makes such points as the following:

1. *Proper use is basic.* Educators continually must be on the lookout for new ways to utilize all resources, appropriate knowledge, and procedures that will help pupils learn more effectively. Television is *one* process. How effectively television instruction is used, the role it will ultimately attain, and its importance will depend on how intelligently and imaginatively it is used.

2. *The television set is a ma-*

chine, not a teacher. You can get out of it only what you put into it. In the case of the TV lesson, it reflects what has been determined to be important, useful, and appropriate. But this lesson derives no magic properties because it is taught with the aid of television. How the lesson is presented and what is taught depends on the teacher, since television itself does not and cannot produce or teach a lesson.

3. *Television is only one of several instructional devices.* The screen lesson must be supplemented by classroom-learning situations and coordinated with the other experiences of the school day.

4. *Television can be a unique aid to instruction.* It can present situations not otherwise possible or practicable. For example, it can show activities too dangerous for classroom situations. The camera can make available the use of resource persons to speak before several hundred persons.

5. *Television has limitations.* It is not a universal panacea. As used at Hagerstown, it is a one-way channel. New procedures will be required to offset this or to permit intercommunication between the studio teacher and the class. And, since the lesson content can be presented by camera with greater speed, there is danger of covering too much territory too quickly.

6. *Teamwork among teachers is stimulated.* The one major conclusion reached at Hagerstown schools is that telecasting is most effective when the studio teacher and the classroom teachers work closely together. Daily communication of various kinds between the two types of instructors is an important part of the program. If there is one phrase that is anathema in Washington County, it is "master teacher." The studio teacher and the classroom teacher are part of a team that can achieve the desired educational results.

AN ACTIVE EXPERIENCE

7. *Viewing is an active experience.* Some educators still conceive of television instruction as a passive pupil experience, with the studio teacher pouring and the pupil absorbing. Actually, the student is very much an active participant. In the lower grades this participation often involves physical activity, and even in the high school the required careful notetaking keeps the student on his toes. Since the presentation is made only once, the student must give constant attention lest some important point be missed. Daily experience in sorting out from the lecture and demonstration those points that the student considers most important are believed by the Washington County staff to make the student more selfreliant and to prepare him better for college and other specialized training.

8. *Telecasting is an experience shared in common.* The results from the televised lesson point up the individual differences of the viewing pupils, which then can be dealt

with personally by the classroom teacher. Should results show that the television instructor is ahead of the majority of the class, a dark screen provides time for adjustment. Any student who previously has mastered the situation to be demonstrated on television can be excused for private study of subjects in which he is less expert.

The most obvious transformation in Washington County school system during the last two years is said to have been the stimulation received by members of the teaching staff. They are more alert, more introspective, and are rethinking the whole educational process as never before. As part of the planning force, teachers are constantly on the lookout for new methods or means by which they may help improve the instructional program.

Would it be possible for another school, without "the external infusion of the substantial financial help" enjoyed by Washington County, to duplicate the Maryland program? No one as yet has the answer. But here is something to contemplate. At Hagerstown fewer than four specialists reach as many children — in music, art, science—as ordinarily would be reached by 33 special teachers. The annual salaries of these 33 specialists, if they could be recruited by the school system (which is not likely), would total more than $150,000. A saving of this type could represent a substantial item in the amortization of any TV equipment purchase.

While Superintendent Brish is by no means ready to advocate that all schools rush immediately into the widespread use of TV, he *is* impatient with two types of educators: those who pass judgment on educational television without first-hand experience with it, and those who would withhold final judgment until graduates of a TV program have proved themselves in college or in the business world. A school system does not have to "swallow everything" just because it is willing to give a new method such as television a trial, he emphasizes. On the other hand, it need not hesitate trying out educational television because of the fear that the decision implies a mutually exclusive choice between the textbook and the TV screen.

Meanwhile, the various schools in the Hagerstown area are continuing to collect daily data that will help them evaluate the effectiveness of telecasting under normal school conditions in meeting such current educational problems as the following: (1) enhancement of the status of teaching; (2) relation of the pupil-teacher ratio to the quality of instruction; (3) rapidly increasing enrolment; (4) lack of adequate classroom space; (5) shortage of properly trained and certified teachers; (6) organization of the school system to effect savings and personnel; (7) distribution of available finances, and (8) the greater use of school, community, and county resources to enrich learning activities. •

Various Methods Used for

Determining Readiness for Desegregation

HERBERT WEY and JOHN COREY

In Action Patterns in School Desegregation

ELEMENTARY educators know that a child must be ready before he can learn to read. If he is forced prematurely, rebellion against the effort sets in and failure often results. To avert this, the first-grade teacher attempts to assess the child's readiness. The effort usually fosters favorable reading attitudes, assuring the teacher and future teachers a greater likelihood of success in the continuing process of teaching the child to read. Similarly, school officials should know the readiness of their community before initiating an acceptance-of-desegregation program.

One superintendent said that he would find out how ready his community was by desegregating it. He found out. It took the National Guard to clear his school steps of protesting citizens who obviously were "not ready."

Determining readiness enables the superintendent, like the reading teacher, to know when to begin and what the community can take before hostility to the entire effort develops. With such information as a basis, courses of action can be charted more confidently. Since no standard tests exist for determining desegregation readiness, certain school authorities have devised their own—some quite unique and effective.

Herbert Wey is Professor of Education, University of Miami, Florida, and John Corey is Instructor in Education, Appalachian State Teachers College, Boone, North Carolina. *Reported from* Action Patterns in School Desegregation, *published by Phi Delta Kappa, Inc., Bloomington, Ind.,* 1959 ($1.50). *Chapter* II, 8–14.

"The team approach" calls for a lay committee of selected and trustworthy members, each preferably a leader of a particular population segment. These citizens enter into discussions concerning desegregation with people they know best, ostensibly for no other purpose than to talk over a current issue of the day. Since the respondents do not realize that their attitudes are being analyzed, true feelings generally are obtained. When each committeeman thinks he has talked to enough persons to have a representative view of his particular group, he reports his findings back to the superintendent. The superintendent, by compiling and analyzing reports from all community areas, evaluates over-all readiness. One official, for example, concluded that his community stood against desegregation but would accept it without overt action. Ac-

cordingly, he mapped out a program of preparation based on the mass approach with the platform, "We don't like this thing, but let's make it work the best way we can."

OPINION SURVEYS

A dozen systems have used opinion polls of various kinds to determine readiness. Perry, Oklahoma, circulated two written questionnaires, one to the "citizen on the street" and the other to students. Questions were pointed toward general mixing of races with no mention of public-school desegregation, because officials wanted to avoid premature discussions.

A Charlottesville, Virginia, PTA board survey, however, got down to the specific point. Questionnaires mailed to 456 parents of Venable School pupils asked, "What is your preference: some measure of integration, or a closed Venable public school?" Fifty-eight percent of 304 families answering checked a preference for some measure of integration. Of all families polled, 39 percent preferred integration, 28 percent closing, but 38 percent did not reply. Charlottesville anti-desegregation leaders criticized the poll as not offering a proper choice of alternative. One opponent said, "The choice would have been different if it had been simply between 'integration' and 'segregation.'" He further stated that there is no such thing as partial integration and that families not returning ballots realized the choice offered did not merit a reply.

The Ponca City, Oklahoma, superintendent conducted his own survey of civic clubs, church groups, and school organizations. He requested members of audiences to fill out questionnaires after he addressed them. There was no quizzing as to whether desegregation should take place—that was assumed. The question was, "Which way do you prefer it?" Four alternatives were listed: (1) Complete segregation of students and teachers. (2) Complete integration of students. (3) Continued separation of schools with optional enrolment in both Negro and white schools. (4) No move at present. The tally revealed that 56 percent favored optional enrolment in both Negro and white schools, which cued the superintendent to prepare for the "optional" course. His survey also pointed out a possible index to opposition—a 1.4 percentage favoring no move at all. Although small, this percentage cannot be taken lightly. A few dissenters, if vocal, can cause a community uproar.

The attorney general of Florida initiated a state-wide survey of leadership opinion to ascertain feelings of Florida leaders. The Florida Cabinet authorized and allocated $10,000 to finance the project—perhaps the most ambitious and inclusive of any to date. Information obtained was to be presented to the United States Supreme Court for use in formulating its final decree in the Brown case.

This survey found that three-fourths of the white leaders dis-

agreed with the Court decision, but the majority indicated willingness to do what courts and school officials should decide. It was further concluded that 30 percent disagreed so violently that they would refuse to cooperate with any desegregation move or would actively oppose it. Other findings in this survey, which sought to discover a number of other attitudes toward the problem, brought out such facts as these: that less than firm positive action to prevent public disorders might be expected from Florida's police (Florida peace officers were the white leaders most opposed to desegregation); that many white children would be withdrawn from public schools, especially by families in higher income brackets; and that only 5 percent of Negro students are above the midpoint of the white generalability level.

In spite of all the useful information uncovered by polls, several systems turned thumbs down on the public-opinion survey, believing it to be the poorest method of determining readiness. "A survey implies that there is a choice," states a West Virginia official. "It's the same as polling people whether they favor taxes or not."

Superintendent Melvin Self of Perry, Oklahoma, found that a "sounding committee" could accurately assess public attitudes. A few small-system superintendents stated confidently that they had served their communities long enough to perceive personally local readiness without resorting to lay advice. One large city superintendent, Omer Carmichael of Louisville, said he knew his city was ready when members of a local civic club rose in a standing ovation following his remarks in an address to the effect that he favored beginning local desegregation. Key figures in the community have been asked by some superintendents to aid in determining readiness. Informal discussions with lay groups rather than planned meetings, with as little publicity as possible, have also been used by some.

"There is no need determining readiness," declares a west Texas superintendent. "Law is law—it must be followed, ready or not." With this guideline, he desegregated. But generally speaking, it has been noted that superintendents feel they have a definite responsibility for determining and creating readiness on the part of the board of education and the community. Once readiness has been determined, the superintendent and his board have joint responsibilities in preparing and carrying out a program of desegregation.

The methods used have indeed been varied. Some have been overt, some disguised or hidden. The important point is that the majority of systems succeeding in their programs did undertake to ascertain readiness in one form or another and charted courses of action according to their findings. Some few succeeded without determining readiness. Others did not. •

The Difficulties Faced and the Solutions Proposed

Five Basic Problems of Education

FRED M. HECHINGER

In The New York Times Magazine

EVER since the cold war moved into outer space, the American people have been concerned about education. No longer is the sky the limit; even the moon is only a whistle stop. And in this futuristic contest, the classrooms are the launching platforms.

Hardly a week passes without several television programs peeking behind the scenes of education. Not long ago, a broadcaster cornered a few high-school students, and their deplorable ignorance set off a national storm of criticism. The Rockefeller report on education got top billing on the front pages of even small-town dailies. Rear Admiral Hyman G. Rickover, father of the atomic submarine, received a sympathetic public ear when he proclaimed that, if the money for education could not be found in the federal budget, the defense appropriation should be cut.

President Eisenhower appointed a special "Committee on Education beyond the High School." The Ford Foundation made the largest gift in the history of private philanthropy for the increase of professors' salaries. James Bryant Conant, Harvard's former president, has devoted the past two years to an attempt to find out what is wrong with American high-school education. In fact, the "Conant Report," only recently published, has already stirred up more excitement than many government White Papers.

Fred M. Hechinger, Associate Publisher of the Sunday Herald, *Bridgeport, Connecticut, is Past President of the Education Writers Association and author of* The Big Red Schoolhouse. *Reported from* The New York Times Magazine, (*January* 25, 1959), 11, 62–63.

Everybody is concerned about education; but "education" is an elusive, amorphous thing. Before it can be understood and improved, some of the crucial problems must be singled out and defined. Let me set down what seem to be the five most immediate of these problems. And then, in what must here be only a few sentences, point out what the experts are recommending.

1. How can American standards of education be raised, and what, especially, can be done to meet the challenge of the exceptionally gifted child?

American democracy promises every child a full elementary and secondary education. But the unanswered question has always been how to do this without surrendering to the lowest common denominator. Now there is almost unani-

mous agreement among the experts that the search for quality in a system of quantity rates first attention.

Concerning the problem of the curriculum, which has been loaded down with a variety of electives, the Rockefeller report demands that "we reach some agreement on priorities in subject-matter."

There is a demand for greater sense of continuity of subjects and a greater scope of understanding. To that 2 percent of gifted pupils much more attention must be paid. The experts call for a variety of tests, some scoring native talent, others the actual achievement of the student, with personal observation and guidance. Once the gifted students are recognized, the experts want them to be given advanced work, without separating them from their classmates. Early admission to college in its several forms is to be encouraged.

FOR BETTER TEACHERS

2. How can we get better teachers?

"No education system can be better than its teachers," warns the Rockefeller report. Then, having covered the current situation regarding both the number of teachers now in prospect and the critical problem involved in the better education and training of teachers, the report points out that the task of getting a sufficient number of teachers is primarily one of recruiting and of offering an attractive career.

"But even with aggressive recruitment there appears to be little or no likelihood that we can bring into teaching at any level anything approaching the number of *qualified* and *gifted* teachers we need," says the Rockefeller report. "We must therefore utilize our superior teachers more effectively."

One way, experts say, is to eliminate many of the petty tasks which occupy a teacher's time. This theory is being put to the test in Bay City, Michigan, where it has been found successful. Others are under way, such as the use of "teams" of teachers made up of one "master teacher," one regular teacher, and one untrained assistant, to handle larger classes. The use of television has also made it possible to get more of the best teachers into contact with more students.

3. Should we emphasize science as against the liberal arts?

The experts agree on two fundamental points: (1) that, despite the panic headlines, science must not crowd out the humanities; (2) that it is vital for all students, not just the scientifically inclined, to have a thorough measure of basic mathematics and science.

On the first point, The President's Committee on Education beyond the High School says that the country "would be inexcusably blind if it failed to see that the challenge of the next 20 years will require leaders not only in science and engineering and in business and industry, but in government and politics, in foreign affairs and

diplomacy, in education and civic affairs." The experts agree that it is not a question of "either-or" between science and the liberal arts. The Rockefeller report warns as much against the narrowly trained scientist as against the educated man who is illiterate in science.

THE COLLEGE BULGE

4. Who should go to college?

Already more than 3,000,000 young Americans are enrolled in college—a total of one-third of the eligible age group. Is universal college the next step, following the universal high school? Some state universities have, in practice, accepted this principle; they consider a high-school diploma an automatic admission. Other college spokesmen warn against the danger of indiscriminate admission policies as an invitation to lowered standards. They are, however, more concerned that rising costs will price the colleges out of the market for many able youngsters. One fact is clear: Even if the present policy of selection is continued, most colleges would have to double or triple in size by 1975 in order to accommodate the same percentage of students who go to college today.

No expert wants to restrict college admission, but all would like to see the standards raised so that the restrictions could be built into the program of selection. They applaud current trends in that direction. They cite the announcement by the University of Illinois that by September, 1960, its freshmen will no longer be nursed along in remedial English courses. They point with approval to more than a dozen colleges which have revived foreign-language requirements for admission.

The problem is not so much whom to keep out of college, but rather to make sure that those who should go to college do so. The two roadblocks, the experts agree, are motivation and finances. To remove the first, they say that young people with talent will have to be shown more effectively that there is real value and excitement in higher education. To remove the second, they suggest more scholarships. All experts agree there should be a greater number of two-year colleges for those who are unwilling or unable to commit themselves to the usual four years of higher education.

Yet, when one considers the importance of the problem of who should go to college, it has been disappointing to find that most of the experts are somewhat vague and hedging in their solutions. The reason is simple: They are torn between rational planning and the commitment to an ideal. The first calls for toughness in setting up restrictions so that the colleges and universities can be made into institutions of excellence; and the second dreams about the removal of all limitations from a child's educational horizon. At present, the American genius for compromise is in search of a formula that will be

democratic without destroying the standards of scholarship and education.

5. How do you pay for all this?

If mass and class in education are to be combined, then the cost will be high. What compounds the difficulty is the almost pathological fear of government control through government financing. Yet, from the problem of the loss of potentially able teachers to higher paying jobs, to the fact that local spending is not even beginning to catch up with school-construction needs, every sign points to an inescapable truth: The present sources of money are insufficient to pay for a first-class education system.

FINANCIAL IMPLICATION

None of the experts has tackled the money problem with complete candor. The fear of an all-out fight over the principle of federal aid has led to a flood of cautious statements and even more cautious legislation. Yet between the lines the implication is clear: Federal aid will have to be a permanent part of the picture.

As the Rockefeller report points out: "For those who wish to resist or postpone the resort to federal funds and at the same time not constrict educational services, there seems to be only one alternative: a thorough, painful, politically courageous overhaul of state and local tax systems."

Almost certainly this is not going to happen, and definitely not in time to bolster a weakened edifice of education. Real federal aid as a key to the financing of the schools remains an issue, with the fear of federal control still the major roadblock to sweeping appropriations.

The Rockefeller report has pointed out some safeguards that could be built into federal aid to prevent it from leading to federal control. It suggests that federal funds would be "one source of support among many," that state, local, and private sources of funds "should continue to be the major factor in the support of education," and that "federal funds should be used only to balance the serious gaps in the total educational system and should be given in such a manner as to encourage state and local governments to use their own resources."

But whatever the sources may be, the experts have no doubt whatsoever that, financially, we already face a real emergency. "It will not be enough to meet the problem grudgingly or with a little more money," says the Rockefeller report. "The nation's need for good education is immediate; and good education is expensive. That is the fact which the American people have never been quite prepared to face. At stake is nothing less than our national greatness and our aspirations for the dignity of the individual. If the public is not prepared for this, then responsible educators, business leaders, political leaders, unions, and civic organizations must join in a national campaign to prepare them." •

1959

Individual Integrity Is Needed

Educating the Individual for a Changing World

JAMES C. ZEDER

WHEN we speak of education it is important to consider the specifics of curriculum content and teaching methods. However, it seems to me that in order to be really effective in our preparation for the challenges of this rapidly changing world we have to go one step farther in our thinking. We need to give attention to the spiritual and psychological needs of human beings.

No man is just a thinking machine, or a bundle of skills, or a filing cabinet of ideas. What we need to remember is that in man's nature there is a spark that ignites his creative energies and makes him a useful, responsible, and effective person. Perhaps we need a greater realization that it is the responsibility of education to develop this spark in as many young men and women as possible.

In this connection, we should consider what effect the forces and pressures of this changing technological age are having on the human personality. In recent years we have been hearing from many writers and commentators that our society is sick with the disease of conformity. We are told that our young people are simply a herd of Elvis Presley fans—that group-mindedness in business and government is creating a nation of Organization Men and destroying the initiative and vigor of American business enterprise—that team action is stifling scientific invention.

James C. Zeder is Vice-President of the Chrysler Corporation, Detroit, Michigan. Reported from an address made at the Thomas Alva Edison Foundation's annual Award Luncheon for Children's Books, (February 3, 1959).

What these critics are overlooking is that many conditions of our day make teamwork and common effort necessary. Big and complex operations in business, research, government, and international affairs require the effective combination and utilization of *many* skills and abilities. And we can expect that the vast enterprises and growing challenges of the future will demand, more than ever, a pooling of talents, a meeting of minds, and a concert of opinion.

However, some of the critics may have touched on something that is vital and fundamental. There may be some truth in what they say. Perhaps too often we have tried to huddle together—to plan by committee to avoid the responsibility and loneliness of individual thought and decision. Maybe we have acquired too much distaste for uniqueness and individuality. Perhaps in too many cases we have

tried to replace individual imagination and creation with brainstorming and group action.

Certainly the contemporary world needs men who know how to make creative contacts with other men—who know how to coordinate and cooperate, even in committees. But isn't it possible that what we need *most* is individuals who have moral conviction, lofty ideals, and personal pride and confidence—men and women who have individual integrity and who always retain that integrity in dealing with others?

If this is true, then it is also true that we should consider how our schools and universities can best cultivate the individual's deepest mental and spiritual qualities—how education can give him the creativity, the inner direction, the stability he needs in an era of dynamic and often violent change. Though it is not easy to say precisely how this can be done, I am sure it *cannot* be accomplished by limiting one's education to a narrow professional or technical specialty. I am certain that basically it is a job for the branches of knowledge which are concerned with the farthest reaches of the human spirit—religion, of course, but also philosophy, history, literature, the fine arts, psychology, and sociology.

These are the studies that give a man the ability to evaluate change in terms of human progress—that prepare him to accept new discoveries without discarding the valid experiences of the past. These are the studies that give him the understanding and motivation that make for a creative life and for creative work. These are the studies that prepare him to make wise and sure decisions.

The education of the twentieth-century man must awaken and develop his intellectual and spiritual powers *before* he embarks on a career so that he may bring to that career the greatest possible intelligence, judgment, resourcefulness, and character. It must give him receptivity to new and changing ideas. It must encourage him to extend himself—to grow beyond mere competence. It must help him to cultivate an inquiring mind, a flexible mind, a critical mind, and a reasoning mind.

This, along with a deep-rooted faith and belief in a Power greater than man and all his works, tends to make the individual's emotional, spiritual, and intellectual life so steady and secure that he can never be slowed or deterred from his course by despair, by failure, or by turbulent change in his environment. It will supply him with fuel to keep his creative energies burning to meet the difficult and complex challenges of this century. •

THE vital need of education may be seen in some of its critics.—Frank Miles in *Midland Schools.*

1959

From Authoritarian to Democratic

My Changing Concept of Leadership in Education

ROBERT H. QUIGGLE

In The Bulletin of the National Association of Secondary-School Principals

WHEN I first became a full-time high-school principal in 1943, I don't recall being particularly concerned with the improvement of curriculum. My concern had much more to do with the housekeeping and maintaining an efficient appearance in our school. Also, it was obvious that the teachers were not concerned with the improvement of curriculum. They functioned with the students in very much the same manner as I functioned with them. In other words, authority played a dominant role in our school.

The occasional satisfaction I felt did not compensate for an increasingly uneasy feeling. What were we really doing for our students? Were we preparing these young people to live successfully in a democratic society or were we preparing them to take orders in some police state? Should teaching be a constant process of doing things to people, or would it be more appropriate in our society if teaching were more often a process of helping people do things to and for themselves? I was concerned about these matters. And the knowledge that my community looked on me as a successful principal and that they approved my approach caused me some anxiety.

Robert H. Quiggle is Principal of Parsippany High School, New Jersey. Reported from The Bulletin of the National Association of Secondary-School Principals, *XLIII (February* 1959), 5–9.

On the strength of our obviously well-ordered school, I was offered the principalship in a neighboring high school which had almost twice as many students. The months intervening between my accepting the new position and actually functioning in it found me doing a great deal of soul searching. During my first full-time principalship, the yeast had risen. In my youthful enthusiasm, I intended to overcome the drawbacks I had come to associate with an authoritarian approach in my new school immediately.

First, we would organize our faculty in such a manner that everyone would be in a position to contribute to the development of our program for the welfare of students. We established a teachers' planning council, which was an organization composed of all regular faculty members in our high school. Its purpose was the promotion of good student-teacher relationships; democratic teacher-administrator rela-

tionships; and a better understanding among pupils, parents, teachers, and administrators. We had an executive planning board, we had a planned agenda, and we had special committees to give reports. A consistent effort was made to use group-process techniques in order that the council might make decisions representing the unanimous approval of everyone.

From an exterior point of view it appeared that our school was a democratic organization. But, for at least the first four years of the eight in which I was at this school, it was no more democratic than the preceding school. Even though we were organized in such a way that every teacher could be heard, I did not have sufficient confidence in myself or in them to be democratic, although I sincerely thought I was. My technique was to determine where we should go and then proceed to see that we got there. I was a manipulator, and, as such, a no better or less honest administrator than I had been in my first school. Furthermore, I had not been fooling anyone—students or teachers.

Observation, objective analysis, and more soul searching finally drove home to me the fact that our program was not causing our teachers to try enthusiastically to improve the learning approach for our students. I set down a few hypotheses. All of them were useful to me in changing my concept of leadership. These two will illustrate what I mean:

People do not fully identify themselves with a situation until they are truly involved in decision making.

One of the best ways for anyone to exert leadership is by honest participation with others in solving problems.

A third may have been the opening key to my dilemma. Here it is:

In school administration there are two areas of decision making. One is pure routine and procedure and important from the organizational point of view. The other is developmental: How can we do better than we are doing?

This is where we began. Our faculty unanimously agreed that from then on the routine and procedure decisions would be made by the individuals most directly involved, and, for those decisions, the individual making them was directly responsible to the principal. Also, there was complete faculty agreement that developmental decisions, as long as they did not violate school-district policy and as long as they pertained only to our staff and to our school, were to be made by our high-school faculty through our faculty organization. The principal would participate in these consensus decisions and would work with the other members of the staff in carrying them out.

As I look back, the real key to our program's becoming vibrant, dynamic, and creative was my finally coming to the place where I really had faith and confidence in the people with whom I was working. Two schools and eight years later, my convictions regarding

leadership in education are very strong. If a faculty cooperately determines the school's purposes in accordance with proved principles of learning and establishes a few basic concepts for guide posts, I believe [illegible] the school will soon show sig[illegible] of being dynamic and creative.

At the risk of sounding complacent—something I could not possibly be—I wish to share with you a few of the satisfactions that have come to me in recent years. Faculty members of the two schools in which I have most recently worked have, almost to a man, constantly stretched themselves toward becoming better teachers. They have worked extra hours on committees, with individual students, and on the hundred and one things that a good teacher finds to do without any sign of complaint. Our students look on their teachers as partners, and seek their guidance. School is something meaningful to these young people, and their increasing ability toward selfdirection makes it necessary for all of us to stretch to keep pace. Of course, as does every school, we have problems. But everyone—students as well as teachers—is eager to help solve them.

A few of the basic concepts that have benefited us immeasurably in attaining the atmosphere that is present in our program are as follows:

1. Teaching is a process of helping people do things to and for themselves.

2. In educating, we must start with each individual where he is.

3. A teacher should function as a catalyst; he has the responsibility to help bring all available resources into the solution of problems.

4. Things don't just happen; they are caused.

5. Content is very important, but it is most properly used as a means toward an end and not as an end in itself.

6. Teaching improves as teachers improve.

7. Leadership in education, whether it be in the principal's office or in the classroom, represents a constant process of releasing human potential.

It is my belief that, as educational leaders, we have the responsibility of providing the mechanics that help create a situation conducive to growth. Then we should see to it that all available resources have an opportunity to enter into the solution of common problems.

It is impossible for me to see how growth can start anywhere except with the individual who is doing the growing. If this is true, how can any situation improve or how can individuals grow and develop unless these individuals are truly involved? It is my opinion that individuals will not be truly involved unless what they think and what they say actually counts. After this is true, then the only limiting factor is the combined potential of the people involved, and, if each is constantly utilizing all available resources, the total potential is an ever-increasing quality as well as quantity. •

Why the Differences?

American and European Education

BYRON S. HOLLINSHEAD

In NEA Journal

WHILE living in Europe for the past six years, I was often puzzled about how to explain American education to Europeans. Perhaps it was partly because we seldom feel the need to explain something we take so much for granted. Partly, also, it was because American education represents American culture with all its borrowings and originalities, as that culture has shaped and reshaped itself over the past three centuries.

To give even a partial description of this culture would require a knowledge of the social history of several nationalities and an examination of the biological origins almost impossible to undertake. In contrast, a European's cultural past seems clear to him, for in many cases the physical evidences of it lie before his eyes. His school has taught him about a culture uniquely his, be it Latinate, Germanic, or Anglo-Saxon. Each of these cultures has an ancient literature, a set of beliefs, and its own interpretation of its role in history. In such a setting, one can be reasonably sure about what should be taught to youngsters.

American origins, on the other hand, represent all varieties of the three chief Western European cultures, and our strongest original influence came from that one of the three (Anglo-Saxon) which is in large part a mixture of the other two. Furthermore, in coming to America, we found ourselves in a new set of circumstances which encouraged new ways of thinking and believing. The stimulation of the new environment and the cross-fertilization of many nationalities had the effect of invigorating us mentally and physically. What this diverse set of origins did *not* do was to give us a traditional view of life which could be taught in a traditional way.

Therefore, we developed a new pattern of education, quite different from that of any of our forebears. It shows the marks of eighteenth-century European thought in its liberalism and of nineteenth-century European thought in its humanitarianism. But it resembles European education no more than potatoes resemble artichokes. These are both vege-

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tables, but one is used one way; the other, another. It is this difference in use and in philosophy that the real differences between American and European education exist.

AMERICAN DESIRES

In dealing with the strongest influences on American education, we must start with what the first settlers seemed to want above all else. They wanted freedom to found new religious denominations, and they did not want to be harassed in the practice of the old ones. In short, they did not want an established church. As a corollary, they wanted to be free to found schools or colleges on behalf of a denomination, community, or an individual. They also wanted a social situation in which everyone with talent and diligence would have a chance to improve his lot in life. Therefore, as time went on, they wanted free public schools, so that the poor could have as good a chance for education as others.

Furthermore, they feared any centralized government and, therefore, wanted to retain all the power of governing schools within the hands of states and local communities. They wanted no fancy studies in the public schools to set off one social class from another. All were to be educated according to community needs and individual talents. Social status was not important.

These key desires set the stage for the great deviations from European tradition. In the colonial days, education did not get much beyond reading, writing, and arithmetic, because settling the new land took every bit of extra energy, and the young people were needed for work as soon as they were able.

Nonetheless, many patterns took form and many influences began which were later to shape our action. The freedom for individuals or groups to start schools and colleges led to some excesses, but the principle of freedom to organize schools and colleges independent of all political control was firmly established. The building of public schools and the passage of laws to require all young people to attend were resisted in some quarters, but the hard part of the struggle was nearly over by the latter part of the nineteenth century. Never afterward was there substantial deviation from the idea of the control of schools by the local community. This is in sharp contrast with the practice in continental Europe.

WHO INFLUENCED WHAT?

It is always difficult to say who had what influence at what time, but there can be little doubt that in the early days Benjamin Franklin and Thomas Jefferson had much to do with the development of our ideas about education. Franklin's thoughts on education included the very practical ones about adding vocational training to the existing academy course. Jefferson, in his *Notes on the State of Virginia*, advocated the education of everybody up to about the sixth grade, then a

selecting out for the years we would now call high school, with further culling to occur before college entrance.

Our sharpest break with European higher education came in the 1860's. Two events in that decade shattered the traditional curriculum and paved the way for rapid change and growth. In 1862 Lincoln signed the Morrill Act creating the land-grant colleges, which in most instances became state universities. These colleges were specifically authorized to give training in agriculture and the practical arts. By this act, new subjects were required to take their places by the side of the more traditional ones. It was difficult from that time on to deny any reasonable subject a place in the widening spectrum of knowledge.

A second event of importance came with the inauguration of Charles W. Eliot as president of Harvard in 1869. In his inaugural speech, Eliot delivered the final death blow to the inflexible curriculum when he advocated that students be given freedom to elect the subjects that interested them.

In the rapidly changing climate of ideas of the late nineteenth century, we needed an educational philosopher to give us the intellectual courage to continue along the lines we were already following. In a remarkable series of lectures in Boston on the subject of pragmatism, William James gave us what we seemed to need. In effect, he said: "Try things to see if they work; if they do, don't worry about what the armchair philosophers say, because you can fix up the theory later." No philosophy could have been more American or served a more useful purpose.

Coming later, but equally important to our developing education, was the work of John Dewey at Columbia University. He, too, was firmly on the side of practicality. One learned by doing. Life itself could be a textbook. Teachers were wasting time unless they attracted the student's interest. Knowledge, to be useful, must be relevant.

Now, to sum up briefly how and why our educational system deviated from the educational systems of Europe: One of the chief points of difference is that (as a result of our being less homogeneous than most European countries and having less common historical background) our curriculum is, speaking generally, less fixed. Another important difference is the fact that our standards are also less fixed because we have no central ministry of education to set them. Each community and each state takes the responsibility for education, in contrast to the centralized European systems. There are two other differences that are also worth noting. One is that we try to educate a much higher percentage of students in high school and college than do other countries. The second is that the variety of subjects included in our regular curriculum is much greater.

1959

Is It Resisting Change and Growth?

Crisis in the Core Curriculum

JOHN W. TIBBETTS

In The Clearing House

NOT many years ago, as educational history goes, a daring new curriculum was proposed, based on the principle that no one learning area was isolated from another and that certain ones, in particular, had extremely high degrees of correlation. This curriculum was named "core," derived from the belief that there existed a general core of knowledge around which most subject areas are developed.

Pronouncements of psychologists and philosophers had long shown the need for this different type of curriculum, but it was John Dewey's emphasis on unity in education that gave rise to the development of the unit in learning which eventually broadened into the core curriculum. The history of its growth over the years is an interesting one. In 1928, the now famous Eight Year Study was launched. It was through this well-documented and widely discussed experiment that the core curriculum came into being as a movement of considerable importance.

The core programs have met with considerable success. Nevertheless, they have a weakness which has long been fatal to educational curriculums. This is the tendency to resist the forces of growth and change.

It is true of the core curriculum, as it is of any curriculum which is to keep from becoming static and stagnant, that it *must* constantly make itself available to scrutiny and revision—to improvement and modernization. How will the core curriculum withstand the scrutiny of modern America and the space era? In how many school systems has the original core framework become the "sacred cow" of its founders and fellow worshippers? In approaching the vulnerability of some of these programs, we need to note their strengths and weaknesses and to ask ourselves if they (and indeed any curriculum) are cognizant of their own bastilles.

One continuing criticism of the core program has been that colleges do not generally have programs which prepare students to become effective teachers of the "core." What have our core leaders done or are they doing to study and rectify this situation?

Many cores have been criticized because they have forced teachers who are prepared in such areas as

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physical education to become teachers of the core—oftentimes without adequate insight by the administrators into the effect both on the teachers and their students. This problem is, of course, not peculiar to the core program.

In some schools, the core program has become an area of creeping intrusion. This is especially true of many "modified core" programs, which combine only two or three subject areas in larger blocks of time. Is it justifiable, because this longer block of time exists, to use the core for *all* homeroom and routine form-completion activities?

TEACHER LOAD AND CORE

How carefully have the core programs considered teacher load and effectiveness of teaching? In some instances odd-hour blocking of time has required as many as five separate daily preparations by teachers. For example, in a two-hour block core program which is fitted into a five-period day, the teacher may have one advanced core class in English and social studies and one core class for slow learners, with the fifth hour of a totally different nature, such as mathematics or science. This means that each day two separate English preparations and a math or science preparation must be made. In schools having such programs, this situation could be improved by merely changing to a six-period day, utilizing shorter periods. The teacher could then teach three core classes with two at the same level, thereby cutting the preparations from five to a maximum of three.

These are but a few examples of inadequacies that exist in many of our core programs throughout the nation. These inadequacies might well receive closer consideration by administrative and teacher groups.

I believe that the core curriculum has much to offer. It is a program which can adjust dynamically and effectively to the demands of this or future civilizations. It provides opportunity for exploration of problems, development of related skills, sound psychological group relations, concerted and long-range surveys, and opportunities for discussive and research techniques; all of which are essential—especially in our technological world, where developments in human relations and in technology must go hand in hand if we are to survive as a nation and world.

The crisis in the core is this: Will core programs, with their great potential for tomorrow's world, permit themselves to be discarded by public and educational opinion due to lack of administrative concern, preparation of qualified teachers, and static organization? If this crisis is to be averted, there must be concerted effort by those who have experienced the successes of the core and who believe in its possibilities. This effort must overcome the sacred aura which has, all too frequently, negated this dynamic curriculum to a form of static traditionalism. •

1959

An Hour of Freedom for Teachers

Teacher Aids for Lunch-Hour Activities

HAMILTON BOOKHOUT

In The School Executive

NOT too long ago, the lunch pail was as symbolic of education as the McGuffey reader. It was the teacher's daily reminder that her responsibilities for the children were continuous from the first arrival in the morning until the last blackboard washer left at night.

Even when the lunch pail gave way to the cafeteria, the teachers' supervisory responsibilities for children remained unchanged. In fact, their duties became more complex by the sheer numbers involved in the central school. And, as elementary schools became larger and more complex, subject teachers of art, music, physical education, library, reading, and speech found less time during the busy school day to discuss and plan together with classroom teachers. This breakdown of communications is most frustrating to both groups and results more often than not in unrelated programs being taught children by classroom teachers and subject teachers. Teachers must have time to confer with one another.

For a long time, we at Bethlehem Central School District had been concerned about the bad effects this continuous day might have on teachers' productivity, communications, and morale. So, during the spring of 1956, we determined to try to find some answers to these perplexing problems. With the aid of representatives from the New York State Education Department, particularly from the Bureau of Elementary School Supervision and the Research Division, a plan was devised whereby teachers could be relieved of noontime duties with children. Under this plan no restrictions are placed on the teachers. They are free at noontime to move about as they choose, go where they will, and eat where they see fit.

Hamilton Bookhout is Supervising Principal, Bethlehem School District, Delmar, New York. Reported from The School Executive, *LXXVIII* (*February* 1959), 136–140.

To permit this freedom—using one of our elementary schools as the pilot school—we hired mature women to serve as pupil-teacher aids. We employed one woman to supervise the two sections of each grade and one additional woman to take care of the special class pupils who were in this school. Their main duty was to supervise the children during both the eating and the play periods of the noon recess. They were hired for two hours each day, and this arrangement allowed them ample time to come early, get

set for the children, confer with staff members and each other, supervise the children, and compare notes at the end of the recess period.

The classroom teachers prepared their pupils for lunch and turned them over to the aids. One classroom teacher, on a rotating basis, and the building principal were on duty during the noon period to assist with emergencies.

The aids assisted the children while they bought their lunches, watched over the eating period, watched over the scheduled after-lunch activities on the playground, in the gymnasium, library, or the other areas used for the program. The aids were encouraged to dress appropriately for the work and the season, so we have found that warm coats and boots, ski suits, and slacks are favorites during the cold winter days. This appropriateness of dress has contributed to the plan's success, for it has permitted the aids to participate in games and activities with the children.

AIDS CONFER, TOO

Each day, the aids meet in the faculty room to confer among themselves and with the principal and teachers. These meetings have been invaluable for bringing about better understanding of children and their behavior, establishing uniform procedures, absorbing information about the school's policies, and receiving instructions from the nurse, physical-education teacher, librarian, and others. Thus the noon program continues the school's program and yet it has variety and vitality.

When it first was to be put into operation, the essentials of this plan were made known through the PTA and published in the local newspapers and in the school's *Central Highlights* which periodically is mailed to all homes in the district. Through these means, applications were received. Applicants were screened and selected by the building principal. Recommendations were submitted to the board of education which appointed the aids at the annual salary of $600, which is at the rate of $1.50 per hour for 200 days. Sick benefits equal to those enjoyed by all other employes are granted to the aids.

When the program first was under consideration we got the approval of the insurance company which carries our public liability, stating it would defend the district and aid in case an accident occurred while a child was under the supervision of an aid. The Legal Division of the State Education Department has also declared the system we are using to be in full compliance with the law.

We have observed a number of positive results. Morale is high among our elementary teachers because they feel that a constructive program was developed to alleviate a major sore-spot. At the same time, they feel the pupil-teacher aid program has not created new problems in its attempt to solve the original one.

And we have learned a lot about teachers through this experiment. First, a teacher does not stop being concerned and interested in her class as soon as she turns the children over to others. In fact, she is doubly anxious to see to it that the training she is giving the children is continued by the aids and she cooperates with these assistants quite well.

We also learned that teachers, when they are freed from supervisory responsibilities, are likely to stay at school for their lunch. They like to eat together. They talk about their work and have the leisure and inclination to do those small tasks which in a busy day very often go undone. We found that as the general-education teachers and the subject teachers ate together, communications were reestablished, better understanding was reached, and long-range planning was possible. There now is better teaching by both groups, and a more unified program for the children.

The principals are the key persons in the plan, not only during screening and selection, but constantly during the year. They conduct workshop sessions for the aids before school starts to acquaint them with each other and their job. Later, weekly meetings are organized for teachers and aids so that the physical-education teacher, for example, can teach the aids a new game that the children are playing, or the psychologist can help them gain understanding of child behavior. The principal on duty during the noon period is available for consultation and help. The principal's constant attention gives security to the aids and prevents untenable situations from developing. The principals conduct periodic evaluation meetings which help to keep the program fluid and in tune with the needs of the children.

As for the aids themselves, they are our best press agents; they have gained an appreciation of the teachers' tasks and a sympathy for the dedicated service teachers give the children in our school district. They interpret the school accurately to the community because they are a part of it and are enthusiastic about what they observe and do. It also should be noted that playground accidents have been reduced in number and severity.

Because of the many advantages, the Board of Education, following the first pilot experiment, accepted the recommendations of several advisory groups who evaluated this program and increased the number of aids. We now have aids in each school in the district. The program is being continually evaluated and it is expected that it will become even more extensive. •

A BILL introduced in the Michigan legislature this year would allow each teacher a lunch period of at least 45 minutes free from any assignment.

To Avoid Being Prisoners of Our Past Perceptions

Teaching Critical Thinking

EDGAR DALE

In The News Letter

MOST of us would be pleased if described as a person who thinks for himself. Critical thinking is an educational goal as acceptable as good health. But what is critical thinking?

Critical thinking is thinking that has been systematically criticized. It is thinking that criticizes not only the means used to reach goals but the goals themselves. It is meeting a forked-road situation for which no neat, exact road map already exists. It is the kind of sustained thinking necessary to deal adequately with such questions as: Shall I study law or go into my father's business? How can I improve my teaching? What must the United States do to continue to be a great nation? Should Antigone have been loyal to her dead brother, Polynices, or to her country?

Our schools and colleges, however, may not be helping students get ready to solve important problems, to learn how to criticize thinking. Dressel and Mayhew's study of college teaching in 19 universities and colleges is not encouraging. Their findings led them to conclude that the oft-stated goal of critical thinking was inadequately achieved because it was seen chiefly as a residue from reading about, or studying, the thinking of others. They were speaking of teaching critical thinking in the social sciences when they noted four major abilities to be sought: (1) to identify central issues, (2) to recognize underlying assumptions, (3) to evaluate evidence or authority, and (4) to draw warranted conclusions. Item (3) noted above, "to evaluate evidence or authority," is subdivided into these abilities: to recognize stereotypes and cliches, to recognize bias and emotional factors in a presentation, to distinguish between relevant and nonrelevant, to distinguish between essential and incidental, to recognize the adequacy of data, to determine whether facts support a generalization, and to check consistency.

Admittedly the thinking abilities here noted are not simple or easily achieved. Nevertheless, they do have simple beginnings, and critical thinking can and must be an objective of the elementary and high school. Have the textbook writers been doing too much of the thinking? Who *is* doing the thinking in the elementary and high school?

Edgar Dale is Editor of The News Letter, *published by The Bureau of Educational Research and Service, Ohio State University, Columbus.*
Reported from The News Letter, *XXIV (January* 1959), 1–4.

Is there evidence, for example, that boys and girls in the second grade are collecting data and drawing inferences about how people in a city or village depend on each other? When the children in the sixth grade visited the historical museum did they make some sound inferences as to the way Indians lived in Ohio 500 years ago—their food, housing, source of fire? Did their inferences agree with those of their friends, with the pamphlets written by archaeologists? Did the children pool their facts and build some supportable generalizations?

In the arithmetic class are children making suitable inferences about the number system, discovering the meaning of the decimal system, the importance of place value, drawing valid conclusions of their own? Were some of the abler junior-high students challenged to find short-cut methods of multiplying or dividing, to look at arithmetic creatively rather than routinely?

What about creative thinking in the high-school English class? Are teachers trying, as one wrote me, "to find a way to get the children to tap their springs of creativity and fluidity and still keep within the bounds of the positive, the additive, and the useful"?

So many opportunities exist for teaching critical thinking in reading. Indeed all reading includes the making of inferences not only as to the amount of weight to be given a particular word or phrase in a sentence, but also as to what the sentences themselves mean when put together in a paragraph. And when we apply what we have read to the solution of a problem, we face again a thinking situation.

Boys and girls need to experience the fact of highly variant interpretations of the same reading material. Probably few would read "the early bird catches the worm" with a worm's-eye view and thus conclude that it is best to be a slug-a-bed. But we do know that many college students interpret "a rolling stone gathers no moss" as favorable advice to avoid being a moss-back and to pick up a fine polish.

STATISTICS HELP THINKING

Critical thinking will be improved if pupils in the junior-high and senior-high schools develop some elementary competencies in statistics. They can do simple polls within the school itself and note the errors that may creep in when safeguards are not set up. They can learn that in controlled experiments with new drugs, cooperating doctors may not know whether they are administering real drugs or sugar pills.

Abler students can report on the polling methods used by Gallup and others and note the techniques used to get adequate samples of the adult population. They can evaluate the methods used to obtain data on television habits. They can learn that statistics are sometimes used the way a drunk uses a lamp-post, for support rather than for illumination.

There are many statistical traps

for the uncritical reader. It is said that the rich and poor both experience the same average amounts of cold weather but that the poor get theirs in the winter and the rich get theirs in the summer. You can drown in water which *averages* two feet in depth. An Ohio high-school senior told a college interviewer that he was not in the upper half of his class but added helpfully, "You know there aren't as many in the upper half as there used to be."

If a critically-minded student in a high-school history class asked, "How do we know whether an event occurred the way the author described it?" he would be facing the question of historical evidence. How does a good historian act when he deals with an event in which he is personally involved? Lord Acton instructed the contributors to the *Cambridge Modern History* to write as if established "in Long. 30 degrees W," in the middle of the Atlantic Ocean. The critical thinker, like the historian, must make a conscious and stubborn effort to get at the truth.

Is logic enough? Does it meet all the needs of critical and creative thinking? Do our neat and supposedly logical arrangements for teaching subject-matter always fit the varied outcomes we are seeking? Is it true, as Harold Lasswell notes in *Psychopathology and Politics*, that:

"The ultimate paradox of logical thinking is that it is selfdestroying when it is too sedulously cultivated. It asserts its own perogatives by clamping down certain restrictive frames of reference on the activity of the mind, and presently ends in impoverishing the activity which it purports to guide into creative channels. It becomes intolerant of the immediate, unanalyzed, primitive abundance of the mind, and by so doing destroys its own source."

The noted inventor Charles Kettering said it more pungently: "Logic enables you to go wrong systematically." Our classification can become too tight, too neat, too rigid. And critical thinking supplies a needed flexibility. Critical thinking thus helps us avoid becoming prisoners of our past perceptions. Men and societies that can bend, won't break. •

Slightly Critical

• The manuscript from a young author had the following note: "The characters in this story are fictional and bear no resemblance to any person living or dead." The editor returned the manuscript with the notation: "That's what's wrong with it."—From *Scholastic Teacher.*

• "Parents are only human," said a 15-year-old panelist on a youth forum. "They can't be right all the time any more than we can."—From *National Parent-Teacher.*

1959

A Word of Gratitude

Accent on Chalk

PETER QUINCE

In The Schoolmaster

WITH the marvels of science as prominently before our eyes as they are today, it is pleasant to think that not all the scientific pundits are occupied with the world-shaking aspects of their trade. Hidden in obscure back rooms, the more modest experts attend to our everyday needs. All praise to them for doing so.

Last week it was reassuring to learn that while the world was reeling from the discovery that a man-made planet had gone rushing into outer space to circle round the sun forever, the British Standards Institute had published their standards for blackboard chalk.

I admit that I did not read the document in question. The highly technical publications of the B.S.I. are fascinating enough for the expert but they are not the stuff best-sellers are made of. Nevertheless, from now on, if only we take the trouble, we shall be able to know whether our chalks are everything they ought to be.

It is clear that as a profession we have long been too complacent about blackboard chalk. We have taken it so much for granted that we have scarcely given it a second thought. Yet, when we come to think about it, chalk is the basic material of our calling. One has only to look back over a day in the classroom to realize how impossible it would have been without blackboard and chalk. The daily stint of sums, the lists of dates and genealogies, the hundred-and-one maps, diagrams, formulas, and other oddments written on the board would all have been impossible without our chalk. Indeed, teaching itself would be impossible. We would be as lost as a doctor without his stethoscope or the lawyer without his books of law.

In fact, the more one thinks about it, the more obvious does it become that popular education as we know it could not have existed had not someone first thought of the blackboard and chalk as a means of conveying information. What is more, the existence of a chain is dependent on the existence of every separate link; and, since the marvels of science, to say nothing of the blessings of the daily press and the mass-production market, are the direct outcome of the spread of popular education, it is no exaggeration to say that the sput-

Peter Quince writes the column "Chalk, Talk, and Today" for the English education magazine, The Schoolmaster. *Reported from* The Schoolmaster, *CLXXV (January 16, 1959), 142.*

nik and the Nautilus, as well as the *Daily Mirror* and Woolworth's, are all built on a foundation of blackboard chalk. It has made them what they are.

Without chalk, we would still be wallowing in the Middle Ages. It is therefore only right that modern science should devote a little time to improving chalk. It is no more than improving the quality of the mother's milk on which it was reared.

Certainly there is more to this business of chalk than meets the eye. And anyone who has given the subject any thought knows that the chalk of early times could scarcely have satisfied the teacher, let alone the British Standards Institute. It was pretty inefficient stuff. As it wrote, it deteriorated into a fine white powder which spread a haze of dust over everything as far as the third row of desks. Very often it suddenly went greasy and made no mark at all. Moreover, it had abrasive properties, and, as we wrote, it polished the blackboard until only the child sitting straight in front could see anything other than a brilliant sheen. But, worst of all, it had the habit of emitting sudden piercing shrieks, as though it were a soul moving from heaven to hell, rather than a stick of chalk moving from *A* to *B*. Many a young teacher whose lesson was teetering on the knife-edge between success and failure has had the die cast irretrievably against him by a demoniac screech from his piece of chalk.

Perhaps we are all an ungrateful set of folk at heart, but how many of us ever remember that over the years these trials have been gradually removed? Bit by bit the experts have given us blackboards in red and green and blue and yellow, and have even resolved our semantic difficulties by dubbing them chalkboards instead. And bit by bit they have removed the dust, and the slip, and the shriek from the stuff we buy as chalk. Now, to crown their efforts, they are standardizing their product, so that we may all be assured of the advantages they have won for the few.

So, reader, as you begin to ply your craft today with your stick of British Standard 3060 noiseless, skidless, dustless, greaseless, easily-rub-outable chalkboard c h a l k, pray breathe a word of gratitude for the experts who invented it. Their labors may not be so spectacular as those of the rocket firers and the atom explorers, but, taken by and large, they have contributed more to our daily well-being than have their more spectacular colleagues. In a better run world they would be the objects of public monuments. As it is, they must be the anonymous recipients of our unobtrusive thanks. •

ONLY he who can see the invisible can do the impossible.—Frank Gaines in *Forbes*.

1959

What Does "Modern Mathematics" Mean?

The Mathematics Teacher's Dilemma

PHILLIP S. JONES

In The University of Michigan School of Education Bulletin

MATHEMATICS education is today receiving more attention and support from the public, professional educators, and professional mathematicians than in any recent decade, perhaps more than in all history. This attention often has been prefaced by criticism and followed by demands for reform. Frequently the criticism implies that Columbus would be completely at home in today's high-school mathematics class. The proposed panacea is that we must teach "modern mathematics."

Since both accusations and proposals have often been made in most general terms in short speeches or published in condensed forms, and sometimes written by reporters unfamiliar with both the old and the new, a considerable number of our best and most conscientious teachers have become disquieted, uncertain of themselves, and even frustrated to the point of wondering if they should seek early retirement. Further, when administrators and supervisors have indicated the need for an instantaneous revolution, rather than giving their support to in-service training, released time, new materials, and an accelerated but well planned evolutionary development of a mathematics program, other teachers have been impelled toward the teaching of a "modern mathematics" whose content and purposes were, to them at least, hazy and ill-defined.

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For example, having heard such terms as Boolean algebra, the algebra of sets, and modern algebra mentioned in the same context with "modern mathematics," some teachers have leaped to the conclusion that the fundamental operations with real and complex numbers and the solution of linear and quadratic equations, if not to be dropped, at least are to take a definitely subordinate position with respect to these new and "modern" topics.

With this, I do not agree! I do not believe that this transfer was ever intended by even the most violent denunciators of stagnation in mathematics education. Further, as I read and listen to the expositions of the denunciators and innovators, I feel, happily, that with thought, discussion, and experimental teaching we are progressing toward a substantially improved

mathematics program—a program that will, however, be less changed and less radically modified than some of the loudest of the early outcrys seemed to imply. I think, also, that someone should speak up for the "old" mathematics which may still be of importance in "modern" times, and for conscientious teachers whose valuable experience in teaching "nonmodern" mathematics should not be lost.

The criterions for what should go into the high-school mathematics curriculum remain the answers to these questions:

1. What topics will best help students to understand the nature, role, and fascination of mathematics?

2. What topics will form the best basis for the further studies of students whether they be motivated by necessity or curiosity?

3. What topics are most necessary to the future citizen's ability to understand his culture and to function effectively in it?

4. Which of all these topics can be most effectively studied at the students' level of maturity and in the time available?

The answers to these questions are by no means simple and easy.

To all interested in the development of a program for "modern" times, I suggest that they become familiar with the work of the three prime movers who are urging changes in the mathematics curriculum and the methods of teaching it. Two of these share the same address and sponsorship, the College Entrance Examination Board, 425 West 117th Street, New York City. These two are the Commission on Mathematics and the Advanced Placement Program.

The University of Illinois Committee on School Mathematics is a third prime mover.

The final report of the Commission on Mathematics is not yet out. The following summary is based on preliminary reports, speeches, and conversations. I have tried to summarize only what I interpreted to be major philosophies, practices, and suggested content changes. And I have tried particularly to seek and point out the common elements possessed by the programs of these three prime movers:

SUGGESTED CHANGES

1. As to the methods and spirit of our teaching, we need to place a strong emphasis on: (*a*) teaching students to understand the principles with which they are working rather than merely to memorize rules; (*b*) stressing both the structure of mathematical systems (undefined terms, defined terms, axioms or postulates, and theorems) and the deductive process by which the structure is built (this should be done in manners appropriate to the maturity of the students, in all subjects—arithmetic, algebra, geometry); and (*c*) showing to students, and helping them to participate in, the processes of discovery and creation which precede the final reorganization of mathematics into a more rigorously logical system

(by the student's sharing in such discovery processes, it is hoped to communicate a feeling for the vigorous aliveness and the intellectual-esthetic pleasures to be found in mathematics, as well as to increase their understanding of it and their proficiency in problem solving).

2. As to the content and organization of our curriculum, the major recommendations seem to be: (*a*) a breaking up of our courses, especially geometry, into several shorter, logical sequences in order to show and practice in capsule form the complete process of building a mathematical structure; (*b*) a stress on a somewhat recently developed approach to the teaching of the concepts of relation and function via the use of ordered pairs of elements, usually but not necessarily numbers (included in this will be considerable stress on inequalities, absolute value, trigonometric functions as functions of numbers rather than of angles, and the graphical representation of all of these); (*c*) a stress on a related and also rather recently developed use of the terminology and symbolism of set theory, and of such related ideas of modern logic as sentences, variables, and the truth sets related to them by determining the set of all substitutions for the variables of a statement which make the statement true; (*d*) an increased and earlier emphasis on, and extended treatment of, ideas which have customarily been called analytic geometry with, possibly, even a little introduction to the calculus (the Advanced Placement Program goes much beyond this); (*e*) more attention to probability and statistics; (*f*) possibly some topics in modern algebra and even more probability and statistics, or calculus together with such enrichment topics as finite geometries, modular arithmetics, and set theory (there seems to be some lack of both agreement and conviction here, and I think these, with the possible exception of probability and statistics, should be viewed as good enrichment and project material for superior students and, largely, for these students in their later high-school years); and (*g*) time for these changes in content and emphasis will be obtained by (1) teaching plane and solid geometry together, but this does not mean completely deleting solid geometry—in fact, it means that more students will be exposed to solid geometry, but both less intensively and less extensively than in the traditional semester course; (2) reducing the amount of time spent on the solution of triangles and especially on their solution using logarithms, but this does not mean that the sine and cosine laws won't be taught, nor does it mean that logarithms won't be taught—quite the reverse, logarithms and exponents will be stressed in the context of the study relations and functions; and (3) possibly making more of a beginning on algebra in the eighth grade—at least with selected students.

In all that I have said above, I

have tried to state what I believe is the intent of the persons originating the ideas. However, I may have partially made them over into an image of my own beliefs, because I now find myself in substantial agreement with most of these interpretations. Further, these ideas now appear to me neither to be new nor "modern" in a radical sense but in many cases to be needed and improved restatements of views long held and perhaps too slightly advocated and practiced by mathematics educators.

When teachers have had an opportunity for a little more training and some time for reading and discussion, many of these materials and methods can be introduced as modifications of standard courses and textbooks. Pursued steadily, continuously, and skillfully, these objectives and the associated materials can bring about an accelerated evolution toward an improved secondary-mathematics program.

AN INTERTWINING

A recent publication of the Commission on Mathematics states that "modern mathematics" is an intertwining of new subject matter and a new point of view. By adding to this that which I believe was implied, namely, that the new subject matter and point of view are to be intertwined with much that is old and valuable in both subject matter and points of view, we conclude:

1. "Modern mathematics" does not mean a total abandonment of all—or even much—of what has been taught in the past.

2. "Modern mathematics" does not mean a reckless introduction of previously unheard of (at the secondary level) materials.

3. "Modern mathematics" does require a reexamination of our time allotments—even to such a lesser topic as drill in factoring as well as to such major topics as solid geometry and trigonometry.

4. "Modern mathematics" does require of teachers both continued study and an effort to adapt, modify, and extend content, terminology, and teaching methods.

5. "Modern mathematics" does not in itself require integrated courses or new textbooks, but, when available, the latter will certainly relieve the teacher of a burden while the former may facilitate instruction which emphasizes structure, the extension of old ideas, and the interrelatedness of all mathematics.

6. "Modern mathematics" is as much a point of view as a body of materials. •

I HAD just told my third-grade arithmetic class that the next day we would begin carrying numbers in addition examples, when a little boy solemnly declared, "Teacher, I may not be able to carry too much as I haven't been feeling so strong lately."—Elinor Watson in *NEA Journal*.

Are Nonpromotions Successful?

Fifteen Who Were Not Promoted

E. R. STEADMAN

In The Elementary School Journal

FOR a number of years, the public schools of River Forest, Illinois, followed a flexible policy on promotions. In carrying out our policy, we considered the needs of each child and tried to place him in the grade where he could function most effectively.

To learn how our policy worked out in the lives of boys and girls who had not been promoted, members of the administrative staff made a cooperative study of nonpromotion. We started out by reviewing the research others had made on the subject and their opinions pro and con. Our own study covered the school years 1954-55 and 1955-56.

Early in our survey, we concluded that a policy of no failures was unsound. Actually the policy conflicts with the idea of meeting the needs of the individual child within the framework of a graded school. For some children, especially in the primary grades, nonpromotion may be desirable.

Those of us in River Forest who took part in the inquiry set for ourselves the problem of studying all children enrolled at the time of the study who had been retained in our schools. We wanted answers to two major questions: How successful was each retention? What factors gave clues to its desirability?

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Our first step was to identify the youngsters who had been retained a full year in our schools. The permanent records gave us fairly complete information on family history, school achievement, scholastic ability, health, and growth. For our inquiry we also needed information on the child's status at the time of the study. We were interested in the child's mental capacity, his general achievement, his work habits, his acceptance by classmates, and his relations with teachers. To get this information we developed a rating sheet, which we asked the child's homeroom teacher at the time of the study to fill out. We then based our analysis on information in the permanent records and on the rating sheets.

We studied records on 15 children in all. We arranged to have two separate evaluations for each of the 15 children. The evaluators were instructed to state whether, in their judgment, the retention had been successful and to give reasons for their decision.

The evaluations and the rating sheet of the child's status were then submitted to eight judges, six on the administrative staff and two outside educators—one an experienced classroom teacher and the other an administrator. On the basis of the information made available to them, three decisions were open to the judges. They might agree with the decision to retain the child. They might question the decision. Or they might report that, from the data submitted, they were unable to tell whether or not the child should have been retained.

After studying the data, the staff decided that nonpromotion had been successful for eight children. For five children, nonpromotion had been unsuccessful. The staff was unable to decide whether nonpromotion had been successful for two children.

Next we set about our second major task: to try to identify factors that would distinguish successful from unsuccessful nonpromotions. We agreed that mental ability; age at retention; grade level at which the child was retained; school achievement; health (vision, hearing, for example); peer relations; attitude of home toward promotion; predominate behavior pattern; and rate of maturation were among such factors. We then set about analyzing the eight successful and five unsuccessful nonpromotions in the light of these factors. As set forth in the tables we prepared, we believe we have information useful to those interested in the success of nonpromotion. Here are some of our findings.

FINDINGS

Of the eight successful nonpromotions, five were girls, while all the unsuccessful nonpromotions were boys. There was a slight tendency for the successful nonpromotions to be further along in school before retention. The two groups showed no consistent differences in health or achievement. The mental level of the unsuccessful nonpromotions as a group was superior to that of the successful nonpromotions.

At the time of retention there was a marked difference in the peer relations of the two groups. Sixty percent of the children in the unsuccessful group had fairly good peer relations as against 25 percent of the successful children. There were few or no differences between the two groups as far as attitude of the home is concerned. Both groups had children who were described as shy or quiet, as hyperactive, as inattentive, and nervous. Children in both groups were found to have a short attention span. Chronological age did not seem to have an important bearing on group differences. There was little evidence of differences in the rate of maturation between the two groups.

It is apparent that we have been more successful with the nonpromotion of girls than of boys. The reason is not immediately evident, although the findings suggest that slow development may have

greater significance for girls than for boys. The quality of peer relations is important. Findings indicate that we should give more attention to this factor when we are considering retaining a child. We might also give more weight to mental ability than we have in the past.

THE PUPILS' FEELINGS

To enrich the data we had gathered, we decided to interview the boys and girls in our study, who were now in the seventh and eighth grades. We wanted to know their feelings about having been retained. Each child was asked the following questions:

Now that you are in Grade ....., do you feel that it was a good idea to retain you?

If you were a teacher, would you recommend retention for some boys and girls? Why?

How has retention helped you?

How has retention hurt you?

Do you feel you are now doing about as good work as you can in school?

The children's feelings varied a great deal. One girl who had been retained in kindergarten said that she did not realize that she had been retained. Her reaction is especially interesting, since her parents had been strongly opposed to retention.

An eighth-grade girl who had been retained in second grade said: "Yes, I think it was a good idea because my eyes were poor. Also, I was the youngest in the class, and now I'm not. Now the kids don't pick on me."

But some boys and girls were deeply hurt. One eighth-grade boy, who had been retained in first grade, said: "It was way too soon to tell how a person will work in studies. It took me a long time to adjust to it. You don't care for a while. I felt so much more inferior, yet bigger and older. When I finally did adjust, the first thing I wanted to do was to get ahead a grade."

A seventh-grade boy said: "It probably would have happened at a later grade, and it's better at an earlier grade. I was pretty unhappy for three or four years. Then I realized it was for my own good."

These boys and girls were almost unanimous in their feeling that, if there is to be a retention, it should be in the primary grades.

At the very least, the children's responses should make us cautious in forming decisions that can have such a far-reaching effect on a child's future.

Our findings are, of course, inconclusive. This is true partly because we studied so few children and partly because several facets of the problem need more intensive investigation. Two areas especially need farther exploration: the effect of slow maturation, particularly among girls, and the quality of peer relations among boys.

Although more studies are needed to support or refute our findings, this inquiry gave our staff an added appreciation of the many factors to be considered in reaching a decision on nonpromotion. •

What's More Important—Friendship or Toys?

Reading the Signs of Mental Health

BRUNO BETTELHEIM

In National Parent-Teacher

FOR most of us it is quite easy to recognize as emotionally unbalanced a person who is always pessimistic and sees everything through dark-colored glasses. We are equally ready to realize that people who view the world only through rose-colored spectacles can be slightly off, too.

Those who always blow hot do not possess mental health, but neither do those who are cold and indifferent. So it would be nice and comfortable if we could assume that holding to the lukewarm middle ground serves as a sign of mental health. But mental health is being neither all the time hot nor all the time cold nor all the time lukewarm. It is rather the ability to have all these emotional reactions freely and none exclusively. It is the ability to respond with each at the appropriate time and in the appropriate situation; and, most important of all, to return with ease from extreme reactions to the everyday, often unexciting tasks at hand.

But when is it appropriate to be excited and when to be indifferent? The answer changes with one's age. What is a matter of excitement to an adult is often a matter of truly Olympian indifference to a child, and the other way around. As every parent knows, a young child doesn't think it is important to come to the table with carefully scrubbed hands, not to mention his neck. The best we can expect is that he may feel indifferent about having to wash his hands.

If a four- or five-year-old, of his own accord, were deeply concerned about coming to the table with clean hands, I certainly would worry about him. I'd read his behavior as a danger signal rather than a sign of mental health. On the other hand, if his parents think it is terribly important that he wash his hands before sitting down to dinner, quite possibly he might wash to please them—though usually only if reminded. Maybe, to maintain his status as a good child, he might even occasionally wash them on his own! Yet that very indifference of his is a sign of mental health, as is his ability to get good and dirty without becoming too fearful about it.

And since being clean is a mat-

Bruno Bettelheim, Professor of Educational Psychology at the University of Chicago, Illinois, also is Principal of the Sonia Shankman Orthogenic School in Chicago for disturbed children. Reported from National Parent-Teacher, *LIII* (*March* 1959), 16–19.

ter of indifference at this age, it's a danger signal if a child has to be dirty at all costs. The same is true of one who is never dirty, who must stay clean at all cost. A child reveals his mental health when he vociferously asserts that his dirty hands are "plenty clean" but then goes and washes them without being cross or sullen afterward. He shows he can get excited about what is exciting at his age, such as the need to affirm his own independence on matters of cleanliness, and still, after a moment or two of screaming, proceed to compromise with his parents.

From this example, adults may rightly conclude that it's quite a difficult and complex thing to read the signs of mental health correctly. First, they must be far enough away from their own concerns to realize that what they feel strongly about may be of great indifference to the child. Second, they must be aware of what is appropriate not only for the child to be indifferent about but also for him to get excited about.

MONEY VS. TOYS

We might speak of money. Here is something of grave importance to adults which leaves children cold. But money is only one type of earthly possession. Let's look at others—toys, for example. To the young child a certain toy may be the gem of his whole treasure house, without which life doesn't seem worthwhile. When a normal child is asked to give up or to share his important toys, he often reacts exactly as we would if we had to give up our stocks and bonds. What is a bank account to us? A symbol of security. But are we not told that a child's toys are symbols of security to him? When he clings to his teddy in times of stress or insecurity, doesn't he show that he relies on it for present and future safety? To us money is also a promise that future pleasures will be available. Yet doesn't the child who surveys his toys with pride and joy feel just the same way?

This example may seem strange to some adults. Since most children should, and eventually do, learn to share their toys and since most adults never learn to share their money, they will say that this proves there is a difference. And a difference there is indeed. To begin with, we don't let anyone browbeat us into sharing our money, unless it is the tax collector. So maybe if children seem willing to share their precious toys, this generosity often isn't a sign of mental health but of the degree to which they are browbeaten by adults! In the second place, and much more important, children's friendships are far more valuable to them than ours are to us. Money to many of us means more than human relations. Thus it is a sign of mental health when friendship means so much to a child that he will share or give away his prized possession rather than forfeit a friendship. He may withdraw it again—because of a squabble or because his need for

friendship has temporarily been satisfied. But if he's given his way, the satisfaction of possession will again wane, and he will once more be ready to give up or share the toy. And so it goes, over longer or shorter stretches of time.

OSCILLATING BEHAVIOR

Here again we see that mental health consists not of one type of behavior but of an easy moving back and forth between different and often opposite types of behavior. This analysis may offer little comfort to the parent or teacher who wants to settle things once and for all and who wants this child always to act "nice." Yet if we wish to safeguard our children's mental health, we must be ready to follow them along their always oscillating way toward maturity.

Let us speak of games. While the grownup is upset about losing a job, a child is upset about losing a game. If he does not get upset about losing a game, he does not have at his disposal the full richness and range of emotions that reveal mental health. We adults must try to understand how very important it is to the five- or six-year-old to win a game. In fact, it is so important that he usually makes an effort to correct his luck by cheating, modifying rules in his favor, or insisting that he won when he lost. At this age a child just can't be a good loser. If he is able to lose without any ado, then either his conscience is overly strict, or he has a need to be punished, or he feels defeated before he starts the game.

Here, then, is another territory in which the signs of mental health are clear but often difficult for an adult to read correctly. We are too inclined to evaluate behavior in terms of our own standards rather than the child's state of development. Parents and teachers who read in Gesell about the typical behavior of children of certain ages are often astonished at how long it takes some behavior to develop. A youngster's ability to obey rules comes relatively late in childhood, and it takes him many years really to understand them.

One of the best signs of mental health is seen when a child can feel deeply significant events yet recovers his emotional balance in due time. After a lost game he must be able to regain his emotional balance within a few minutes; after a move to a new home or new school, within a few weeks or months; and even after the loss of a parent, within a few years. To be able to talk about what's on his mind, what worries him, what he wants or is afraid of, and also to make honest statements about his feelings is normal for a young child. So, too, is his ability to evaluate others on the basis of his standards rather than ours. Let's face it. There are some very nice people who are tense or critical with children. It's a sign of mental health when a child can say about such a person, "I don't *want* to visit him," even if it should happen to be a grandparent! •

1959

How Does He Compare with Other College Students?

The Teacher-Education Student

ROBERT D. NORTH

In The Education of Teachers: New Perspectives

SINCE the quality of our educational system is vitally dependent on the caliber of personnel attracted to the teaching profession, evidence on the relative academic ability of teacher-education students has considerable importance. Does the available evidence indicate that students preparing for teaching are significantly more capable or less capable than college students in general?

It is obvious from the start that a clear-cut answer cannot be expected. If we were living in an autocratic society where college students throughout the nation could be required to take the same tests, comparisons among different classifications of students could be made with ease, although some questions about the implications of the results would remain. Within the existing educational framework, we have no uniform, nationwide data on the academic qualifications of the entire college student population. At best, only limited inferences can be drawn from a variety of data on certain samples.

It must be concluded, however, that a review of some of the salient data of the past 20 years on the relative academic caliber of teacher-education students reveals that the picture has not changed greatly since 1938, when W. S. Learned and B. D. Wood reported that prospective teachers in Pennsylvania ranked among the lowest of all the college curricular groups. In their work "The Student and His Knowledge," they spoke of a group of 2800 prospective teachers as follows:

> **In so far as those expecting to teach are concerned, the result of the Pennsylvania examinations are disappointing. And there is no good reason for believing that the conditions described are confined to Pennsylvania. The majority of the group are most at home in the lower half of total college distributions; they exhibit inferiority in contrast with the nonteachers in nearly every department of study.**

For several decades, the American Council on Education Psychological Examination has been widely used as an entrance or classification test in colleges throughout the country. Norms for freshmen in

Robert D. North is a member of the Educational Records Bureau, New York City. *Reported from* The Education of Teachers: New Perspectives, *the Report of the Second Bowling Green Conference of the National Commission on Teacher Education and Professional Standards, published by the National Education Association,* (*December* 1958), 278–85.

various types of colleges were reported for each edition of the test through 1954. The sampling was not completely nationally representative, since the tests were used to a greater extent by small, privately-controlled colleges than by institutions of other types, but the size of the samples give some import to the data.

Several studies have been made of these reports. Arthur E. Traxler has reviewed the averages for the 1935-1944 period. He found that the average ACE total scores in the teachers colleges ran consistently below those in the other four-year colleges, and close to the averages in the junior colleges. The latest ACE data of a comparable nature also has been analyzed and shows that in 1954 the average teachers-college freshman ranked below 56 percent of the freshmen in the other four-year colleges with respect to scholastic ability, but above 60 percent of the junior-college freshmen included in the sampling.

Students in the education category did not fare very well in the Selective Service College Qualification Test program in 1951 and 1952, in which some 410,000 college students were tested. Concerning these test results, Henry Chauncey, president of the Educational Testing Service, commented as follows:

> No matter how one looks at the major-fields data, the performance of the education group is conspicuously poor. Among students in each year of study, the percent of those in the education category who passed the test is less than half that for the engineering category, for example; on both the quantitative and the verbal components of ability, education ranks lowest of all the major fields.

When the SSCQT results of 2000 education students were analyzed according to specialities within the field, it was found that the scores of physical- and health-education students tended to lower the average of the whole group. Secondary education was the highest ranking specialty, but the percent of students in this speciality who passed the test was slightly smaller than the average for all major fields combined.

Generalizations from these data must be made cautiously, since students took the SSCQT on a voluntary basis and, consequently, there is no assurance that the national college population was adequately represented. Furthermore, as Chauncey points out:

> . . . . a number of prospective teachers, especially subject-matter specialists preparing for high-school teaching, were not included in this [education] category because they had designated themselves as majoring in their particular subject-matter area, and not as majoring in "education." The education group, then, cannot be taken as a representative sample of future male teachers, and the only conclusion that can be drawn from the exceptionally poor performance of the group as a whole is that a large number of low-ability students *are* preparing to enter the teaching field.

College freshmen have been the

subject of several studies made during the past few years.

TESTS OF FRESHMEN

Norms for the new College Qualification Tests have provided a basis for making some comparisons of education freshmen with freshmen in other fields. These tests, consisting of items in the verbal ability, numerical ability, and science and social-studies information areas, are designed for use by colleges in admissions, placement, and guidance procedures. In the fall of 1956, the College Qualification Tests were administered to more than 24,000 freshmen in 37 colleges and universities in 22 states. The general norms are based on the scores of about 14,000 men and 8000 women. Norms for college freshmen in programs leading to the degree in education are given for a group of 274 men and 583 women. Comparison of these norms reveals that in the education group about 80 percent of the men and about 60 percent of the women had scores below average on the general norms. The average scores of the education freshmen fell below those of the freshmen enrolled in engineering, technical, and nursing programs.

Summing up, it can be said that while no single study during the past two decades has been based on a completely representative national sample of teacher-education students, a number of studies have dealt with large-scale samples of varying degrees of adequacy. The findings are largely in agreement in showing that teachers-college students throughout the nation rank below students in other four-year colleges with respect to academic ability. When national samples of education students are compared with comparable samples of students in other curricular areas, they consistently fall below the liberal arts, science, and engineering groups, also most other groups.

On the other hand, there is evidence that the teacher-education students in certain colleges that maintain high admission standards compare quite favorably with comparable groups of students in other curricular areas and in other four-year colleges. And data from a study made in Alabama in 1953 indicated that among Negro-college students the prospective teachers are slightly superior to other Negro students in intelligence and general academic achievement.

It is obvious that prestige and salary considerations strongly affect a college student's choice of a career. In communities where teachers receive rewards commensurate with the value of their professional services, and where teachers colleges can afford to set high standards, college students of superior caliber are being attracted to the teaching profession. Under conditions now prevailing in the country as a whole, however, the field of education is not competing successfully with other professions in drawing the high-caliber personnel that it so urgently needs. •

MAY

Nonthinking Readers Are Crippled Readers

Reading Is Thinking

EMMETT A. BETTS

In The Reading Teacher

"MY child can't read!" is a common complaint of parents. When asked what they mean, parents explain that Johnny doesn't have the necessary phonic skills to learn words. It is true that too many children do not know phonic and other word-learning skills and are, therefore, handicapped in their reading. But there is also evidence that there are more of our pupils who need help on *how to think* in a reading situation.

Most parents can tell that a child is reading poorly or not at all when he cannot identify written words. But it takes a competent teacher to identify the six-year-old who repeats the exact words of an author to answer a question, the eight-year-old who does not relate names (antecedents) to pronouns, or the older student who has not learned to tell the difference between facts and opinions. In short, professional competence is needed to assess the learning needs of pupils and to guide their development into truly able readers. Highly competent teachers are needed for developing thinking skills and abilities.

One of the earmarks of such a competent teacher is the ability to plan strategy for insuring the necessary conditions of learning. Skilful planning places a premium on individual differences, permits a sharp focus on the specific thinking needs of the pupils, and makes the most of the teaching opportunities in instructional material.

Emmett A. Betts is Director of The Betts Reading Clinic, Haverford, Pennsylvania. Reported from The Reading Teacher, *XII (February* 1959), 146-51.

Master teachers plan to help their children find out "what the author says"; that is, do literal reading. But they do much more; they plan to have the pupils learn how to "think about what the author says," to do critical reading.

In preparing the pupils for reading a selection in a story book, for a study-book activity, or for pursuing a major interest in some curriculum area, master teachers guide them into *thinking* about "what we know" and "what we want to know." The first step assesses their interests, attitudes, and concepts which they take to the activity. The second step heightens interest and establishes clear-cut purposes to guide their thinking. In short, the teacher uses sound tactics for starting the pupils on the road to critical thinking, to the considered evaluation of ideas and concepts.

With a general purpose and spe-

cific questions in mind, the pupils are ready to locate and evaluate sources of relevant information. This activity requires a consideration of the reputation of authors, dates of publication, etc., even when using basic readers and study books.

In surveying the materials the pupils are made aware of the difference between facts and opinions. They learn, for example, that the following are statements of fact because they are verifiable:

"In August of 1620, two vessels sailed from England, headed for the new world."

"The temperature in this room is 80 degrees Fahrenheit."

They will learn that a great many statements are opinions, or expressions of attitudes, and are not verifiable:

"You will have fun with it."

"The room is hot."

SELECTING RELEVANT MATERIAL

When pupils learn to discriminate between facts and opinions, they tend to do less arguing and more discussing. Equally important, they are better prepared to select information *relevant* to their purposes.

In testing the relevance of material, pupils learn to answer these questions: (1) What does the author say? (2) Is the statement a fact or an opinion? (3) How can I use this statement? (4) What other help did the author give on my question?

Many kindergarten children learn to judge between highly relevant and totally irrelevant statements. As children learn how to think at succeeding school levels, they make closer judgments of the relevance between statements.

Judging the relevance of statements to purposes plays a major role in thinking. First, the pupil evaluates relevance of subpoints to each other and to the main points in an outline. Furthermore, he consistently uses questions or statements, sentences or phrases to parallel language structure with his ideas. Second, he evaluates relevance in visualizing both stories and information: sequences of important events in a story or experiments, organization of material on maps, charts, slides, etc. Third, he uses relevant facts in solving a mystery, in using the results of an experiment, in making social judgments, etc. That is, straight thinking is required for drawing conclusions from related facts or from cause-effect relationships.

In following through on their strategy for teaching children how to think, teachers are confronted with a subtle, but potent, tactical situation: attitudes. This situation can be summarized as follows:

1. The child's interpretation of a selection depends on the attitudes he takes to it. Therefore, preparation for reading includes the assessment of attitudes toward the topic. Favorable attitudes increase comprehension, while unfavorable attitudes tend to interfere with comprehension.

2. The child's attitudes influence recall. Favorable attitudes promote ease and vividness of recall, and unfavorable attitudes tend to produce hazy, confused ideas.

3. Favorable attitudes increase interest in a topic or a type of selection.

4. Individual attitudes are modified by peer discussions.

Language serves at once to express and to shape our thought. In other words, we think with language. Yet available evidence makes it appear that children who have not learned to think far outnumber those who have not learned the necessary phonic skills. Both, of course, are crippled readers, or nonreaders! Consider, for example, the number of children who can pronounce *fearless,* but who think it means "afraid." How many children cannot divide 1/3 by 4 because they have merely memorized a meaningless rule about "inverting and multiplying"? How many children can pronounce astronomical numbers and yet cannot estimate the coast-to-coast distance across the United States? How many children try to achieve variety of sentence structure by the mechanical rearrangement of sentences rather than by the careful consideration of the ideas they wish to express? The answers to these and related questions offer undisputed evidence of the need for teaching children how to think.

The mere pronunciation of words, the memorization of phonic or mathematic rules, and other emphases on rote memory and mechanics lead to the use of empty words. This false security in words leads to the acceptance of a carload of words without a single idea. The acceptance of word manipulation rather than the thinking about ideas is called *verbalism.* And verbalism can become a malignant disease in education.

But children can be taught how to think. There is real evidence of progress in understanding the strategy and tactics of teaching children how to think. More now is known about the psychology of thinking. And writers of pedagogical textbooks in social studies, science, arithmetic, and reading have begun to apply the conclusions reached by psychologists.

The ability of children to think is limited primarily by their personal experiences and the uses they make of them in problem solving, in abstracting and generalizing to make concepts, in judging, and in drawing conclusions. Under competent teacher guidance, children gradually learn to think within the limits of their rates of maturation. •

ONE publisher reports receiving the following letter from a girl in Arizona: "In one of my Girl Scout projects I was asked to obtain information on children's books and catalogs. Could you send me anything that you feel would be detrimental to my study?"—From *Publishers' Weekly.*

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1959

With Education in Washington

THE EDUCATION DIGEST WASHINGTON BUREAU

Congress Near Midpoint.—It's too early to predict when Congress will adjourn, but it's safe to assume that nearly half of the first session has elapsed.

For education the session has been meaningful because it has produced evidence that the Democrats are not about to launch the free-spending spree which had been predicted. Taking the National Defense Education Act as an example, the Democratic controlled House came within an inch of stopping progress of the various NDEA features. Then came a dramatic reversal and the outlook now is greatly improved but far short of the amount authorized last fall.

NDEA, of course, is important as a major venture of the federal government into new areas of financial support for education. This has practical results—summer institutes, better counseling and guidance, support of math and science teaching, and graduate fellowships—but it also is a weathervane to indicate the mood of Congress toward increased federal aid for education.

Last fall, there was a quick, partial appropriation of $140 million to launch NDEA. The President since has asked for an additional $75 million for the first year of operations, and an additional $150 million for 1959-60. The $75 million is known as a supplemental appropriation and it is this request which came close to sudden death. A special House committee which deals with so-called deficiency appropriations voted to cut the $75 million to $25 million, with the entire cut coming out of all proposed aspects of NDEA except for loans for college students.

The reaction in Washington among education leaders was prompt, loud, and forceful. Wires went out asking for letters to House members to protest the cut and to ask that funds be restored. Arthur S. Flemming, Secretary of Health, Education, and Welfare, held a special press conference in which he said that the cut, if sustained, would amount to "a repudiation of the sense of urgency that led to the passage of this Act."

Education reacted with unusual unanimity. There were protests from audio-visual specialists, from classroom teachers, from organizations of subject-matter specialists, and of language teachers. Institutions of higher education asked that the funds be restored.

The House listened and acted. Debate was surprisingly short and the House appropriated the entire $75.3 million. Senate action was not due until several weeks after House approval, but the outlook was favorable that the National Defense Education Act would have an opportunity to shift into high gear, even though not at full throttle.

The fact remains that the orig-

inal authorization called for $183 million during the first year but that actual requests, much less appropriations, would not cover more than two-thirds of the amount.

Murray-Metcalf.—For many years the National Education Association had advocated federal aid for school construction, without success. Last year, with the approval of its Representative Assembly, it turned to a massive proposal for federal support for school construction and teachers' salaries as well. It also discarded the tag of federal *aid* and started to talk about federal *support*, pointing out that the federal government had a responsibility for the support of education, while aid sounded as if it were an act of charity.

Chief sponsors of the new bill were Senator James E. Murray (D-Mont.) and Representative Lee Metcalf (D-Mont.). Subcommittees on education in both houses held a long series of hearings on the Murray-Metcalf bill, and a generally favorable climate seems to have been established.

NEA leaders were confident of support in the Senate and they concentrated their efforts on the House. There, the committee had expected to report the bill before Easter, then met some unforeseen delays. Predictions now are that the Metcalf bill would be reported around May 1, with amendments. No matter what the specific details of the new changes, the bill is expected to reflect the concept of federal responsibility for school support, to safeguard local control, and to keep the flexible provisions of leaving the states to decide what proportion of each allocation was to go for salaries and school construction.

The Cold War.—The director of the U. S. Central Intelligence Agency has taken a stand in favor of better Soviet education. In a new book, *The Scientific Revolution*, Allen W. Dulles explains that "for many years I have felt that the greatest hope for the future in our relations with the Soviet Union lay in their advancement in education even though in the short run this has been largely harnessed to their military machine."

Education usually is seen as the vital ingredient in the strength and future of the U. S., with emphasis on the part played in the democratic process by an enlightened citizenry. Mr. Dulles' essay in the new anthology, published by Public Affairs Press in Washington, concludes that "Education may . . . be the key to the solution of problems which otherwise would seem insoluble."

Talk with Eisenhower.—One of the signs of spring is the annual announcement of National Teacher of the Year, selected by *McCall's* in cooperation with the U. S. Office of Education and the Council of Chief State School Officers.

This year's choice is Edna Donley of Alva, Oklahoma, 51-year-old

teacher of mathematics, debating, and speech. She came to Washington where she was honored at an NEA reception. She also made a visit to the White House.

Miss Donley reported that President Eisenhower appears to be well informed on education problems, that she enjoyed discussing with him education in general and geometry in particular.

Her "boss," Oliver Hodge, superintendent of education for Oklahoma, accompanied Miss Donley to the White House and saw to it that Mr. Eisenhower learned that her salary was only $4700 per year. Miss Donley has taught for 30 years and holds an M.A.

Summarizing her view of teaching is her comment that 30 years of experience should be 30 new experiences, not a single experience repeated 30 times.

Educational TV.—A fourth major television network within five years was predicted by the president of the National Educational Television and Radio Center last month. Speaking to a Washington conference, John F. White made it clear that he was talking about fourth in terms of age, not quality, because the anticipated ETV network would serve "millions of communications orphans," made up of the malcontent minority which craves substance.

In addition, he said, his organization, which recently moved a major part of its operations from Ann Arbor, Mich., to New York City, "will offer the majority an opportunity for new adventures in learning."

At present, NETRC provides seven and a half hours weekly of programs in the humanities, sciences, arts, social sciences, and public affairs. Within ten years, he went on, "every major city and many smaller ones will have at least one educational television channel on the air. The regular use of television as an important teaching tool will be the standard of all schools within reach of a signal."

Federally Affected Areas.—A problem exists in many parts of the country surrounding military and other federal installations. Because of defense or other needs, the federal government establishes a large plant, air field, or missile base, and brings in its wake a large payroll and an appropriate number of school-age children.

These children swell the rolls of nearby schools but the tax-exempt status of the federal government means that there is no corresponding increase in the tax rolls.

Congress, to remedy this situation, in 1950 passed Public Laws 815 and 874 to provide funds for the construction and maintenance of the additional classrooms needed to accommodate the children in federally impacted areas.

At frequent intervals these laws come up for extension, renewal, or additional authorization, and there are recurring crises for fear that Congress will not act or act too

late. School boards and superintendents have come to rely on these federal in-lieu grants.

Last year, in a mood of economizing, Congress extended the law, but cut $20 million out of the $149 million request for operations, and cut $12.5 million from the $62.5 million requested for new construction in such federally affected areas.

Superintendents, accustomed to the vacillations of Congress, made out their budgets with the expectation that Congress sooner or later would restore the cuts. As the months went by, as the budget-year came closer to its end, as the available funds ran low, there were increasingly fearful pleas for prompt action because the federal grants were below expectations. The cuts made themselves felt.

More than 3000 school districts are affected. Relief now seems in sight after the House on March 24 included $44 million in the second supplemental bill. In addition, prospects were fairly bright for favorable action for federally affected schools during 1959-60 as the *new* appropriation request has survived the first attempt to slash it.

Once Over Lightly.—In his policy-setting speech to the new Congress last January, President Eisenhower asked for a committee to set national goals in education. As of early April the committee had not been named, although Chancellor Lawrence A. Kimpton of the University of Chicago was chosen but not publicly announced as chairman; he then reportedly backed out, and no further progress is known.

The National Defense Education Act includes a program to further the teaching of foreign languages in which the U. S. needs greater resources. After a study by the American Council of Learned Societies, the U. S. Office of Education announced the list of those languages "most critically needed": Arabic, Chinese, Hindustani, Japanese, Portuguese, and Russian. Funds are available to increase teaching of these seldom taught languages.

American Education Week this year will be November 8-14. Theme for 1959: "Praise and Appraise Your Schools." Sponsors are American Legion, National Congress of Parents and Teachers, National Education Association, and U. S. Office of Education.

A Pennsylvania attorney, Ephraim R. Gomberg, is the newly appointed director of the 1960 White House Conference on Children and Youth.

Government surplus property is available for education purposes at a small fraction of its cost. Some items, including science tools, are not being sought. Arthur S. Flemming, Secretary of HEW, made a special point of telling schools to look into this valuable source of supply: "Only about 20 percent of the scientific items actually find their way into education institutions," he said. •

• Educational News •

CHANGES IN SUPERINTENDENCIES:

Chattanooga, Tenn.; **John W. Letson,** formerly acting superintendent, is now superintendent, succeeding **Lawrence G. Derthick,** whose leave of absence status for the past two years while serving as U. S. Commissioner of Education was recently declared void by the city attorney.

Lubbock, Tex.: **A. G. Greer,** formerly superintendent at Mercedes, Tex., has been named successor to **Nat Williams.**

Sante Fe, N.M.: **George P. White,** superintendent, has been named supervisor of elementary education, New Mexico State Department of Education.

Enid, Okla.: **Carl Wagner,** formerly of Hickman Mills, Mo., has succeeded **DeWitt Waller,** retired.

Savannah, Ga.: **D. Leon McCormac,** acting superintendent since the resignation of **William A. Early** in November, has been named superintendent.

Lexington, Mass.: **Medill Blair,** superintendent of Pennsbury Schools, Fallsington, Pa., has been named superintendent, effective Aug. 1.

Bloomfield, N. J.: **Frank B. Stover,** assistant commissioner, New Jersey State Department of Education, has been named successor to **Henry T. Hollingsworth,** who retired in April.

COLLEGE PRESIDENTS:

Montana State University, Missoula: **H. K. Newburn,** who recently resigned as president of the Educational Television and Radio Center, Ann Arbor, Mich., has been named president.

McMurry College, Abilene, Tex.: **Gordon R. Bennett has been inaugurated as president.**

University of Chattanooga, Tenn: **LeRoy A. Martin,** president of Tennessee Wesleyan College, Athens, has been named successor to **David A. Lockmiller,** who resigned to become president of Ohio Wesleyan University, Delaware, in June.

TEACHER-TRAINING INSTITUTIONS:

Teachers College, Columbia University, New York: **John H. Fischer,** superintendent at Baltimore, Md., since 1953, has been appointed dean, succeeding **Stephen M. Corey,** who resigned to return to teaching and research. Dr. Fischer will assume his new position in September.

Western Michigan University, Kalamazoo: **Hugh G. Archer,** superintendent at Paw Paw, Mich., has been named associate professor of education.

Iowa State Teachers College, Cedar Falls: **Martin J. Nelson,** dean of instruction and a member of the staff for 35 years, has announced his retirement in July.

University of Chicago, Ill.: **G. Ernst Giesecke,** vice-president of Texas Technological College, Lubbock, has been named associate dean of the new graduate school of education.

OTHER CHANGES AND APPOINTMENTS:

Margaret Gill, associate secretary of the Association for Supervision and Curriculum Development, has been named executive secretary, succeeding **Rodney Tillman,** who has been appointed director of elementary education, Montgomery County, Md.

Charles M. Robertson, Pratt Institute, Brooklyn, N. Y., has been elected president of the National Art Education Association.

M. Robert Allen, formerly education director of the Quartermaster School at Fort Lee, Va., has been

appointed executive director of the National Home Study Council, succeeding **Homer Kempfer**, now chief adult education advisor to the government of India, New Delhi.

New appointments recently announced for the U. S. Office of Education include: **John L. Cameron**, formerly of the North Carolina State Department of Public Instruction, has succeeded **Roy L. Hamon**, retired, as chief of school housing; **David L. Clark**, Garden City, N. Y., and **Kalmer Stordahl**, Washington, D. C., named research coordinators on the general staff; and **Milton Crane**, formerly of the U. S. Department of State, named to head the Language and Area Center Program of the National Defense Education Act.

Howard H. Cummings, U. S. Office of Education, has succeeded **Jack Allen** as president of the National Council for the Social Studies.

RECENT DEATHS:

A. Raymond Ebaugh, principal of Whittier Elementary School, Royal Oak, Mich., died in March on the day he was to have ascended to the presidency of the National Association of Elementary School Principals. He was 53.

Charles Lake, superintendent at Cleveland, Ohio, from 1933 to 1947, and a former president of the American Association of School Administrators, at the age of 79.

D. Ross Pugmire, professor of school administration at the University of Colorado since 1947, at the age of 56.

William A. Yeager, former director of courses in educational administration, University of Pittsburgh, at the age of 69.

DATES OF THE COMING MONTHS:

June 28-July 3, National Education Association, St. Louis, Mo.

July 31-Aug. 7, World Confederation of Organizations of the Teaching Profession, Washington, D. C.

Aug. 23-28, National Conference of Professors of Educational Administration, University of Buffalo, N. Y.

Oct. 18-22, Association of School Business Officials of the United States and Canada, Miami Beach, Fla.

Teaching Machines

TEACHING machines have been in the news recently. Publicity was given especially to two of them.

The first is a machine developed by B. Frederick Skinner, professor of psychology at Harvard University. It consists of a box-like structure with two small windows. A lesson card is fed into the machine, the student views one item of information or problem at a time, records his response, checks it against the next frame for the right answer, and corrects his error, if any, before going on.

The Ford Foundation has granted $204,310 to Hamilton College, Clinton, N. Y., for experiments using a modified version of this machine. The grant will enable Hamilton to develop and test selfteaching machine materials for courses in logic, mathematics, French, German, and psychology.

The second machine was introduced in April at the New York Institute of Technology. This machine, said to have been 12 years in the making, operates like a private tutor. It tests the student and records his answer as correct or incorrect. If the latter, it spurs the

student on to rectify his mistake, making him repeat the problem until he has the right answer.

This machine does not tolerate carelessness in pupils. "Listen, son," it said in a demonstration lesson, "you are being very careless. You really should study a lot harder."

Juvenile Delinquency

A NATIONAL Invitational Conference on Prevention and Control of Delinquency will be held May 14-15 in Washington, D. C.

The conference, to be attended by 200 persons representing schools and other family-serving and youth-serving agencies, will examine materials and issues that have come out of the first year of the current NEA project on juvenile delinquency.

William C. Kvaraceus, director of the NEA project, has announced the completion of the first of four phases of the project. It is the preparation of a working document by an interdisciplinary team, distilling the best current thought as to definition of delinquency, meaning, and causes. This statement is to be used as a base on which to consider desirable and alternative school practices for prevention and control.

Teacher-Training Grants

THE Ford Foundation announced in April the awarding of grants totaling more than $9 million in the first phase of a concerted new effort to support improved training for teachers.

The institutions receiving grants under the program were Barnard College, Brown University, University of Chicago, Claremont Graduate School, Duke University, George Peabody College for Teachers, Harvard University, Stanford University, and University of Wisconsin.

Four trends will be emphasized in the programs, according to Henry T. Heald, president of the Foundation. They are: extension of general and liberal education for future teachers; establishment of a direct relation between public-school systems and teacher-training colleges, comparable in many respects to the relations between medical schools and hospitals; developing and application of new teaching and teacher-training techniques, including internships, teaching aids and teams, and such technological aids as television, film, and tape recording; and improved long-range financing of teacher education, including payment of teacher-trainees by school systems before certification.

New WCOTP Magazine

A NEW magazine published by the World Confederation of Organizations of the Teaching Profession (WCOTP) is now being distributed. Called *Panorama, Teaching Throughout the World,* the new publication will be issued approximately four times a year, in French, English, and Spanish editions.

Samuel Levenson is editor of the publication.

New Educational Materials

The Big Red Schoolhouse. Fred M. Hechinger. New York: Doubleday & Company, Inc., 1959. Pp. 240. $3.95.

This book presents a readable, vivid description of Russia's schools, a critical analysis of our own education, and an interpretation of the similarities and differences. Mr. Hechinger, who is former education editor of the *New York Herald Tribune* and now associate publisher of the Bridgeport, Conn., *Sunday Herald* and education editor of *Parents' Magazine*, compares every important aspect of Russian education with American primary and secondary schools.

He also reveals how the Russian educational philosophy contradicts the American credo of "education for education's sake." He believes we can maintain our democratic ideals and still compete with the Russian methods.

This book, Paul Woodring points out in the introduction, is an answer to the need for a single book, easily available to Americans, that brings information about the Russian system together in a form useful to the general reader.

Grounds Maintenance Handbook. (Second Edition.) H. S. Conover. New York: F. W. Dodge Corp., 1958. Pp. vii + 501. $10.75.

This volume, which gives complete information on the maintenance of both public and private grounds, will be a valuable reference book for those responsible for school grounds. It covers growing and maintenance of turf, planting and care of trees, maintenance of roads and parking areas, equipment maintenance, insect and disease control, weeds, and soil erosion, among other things in its 10 large chapters. More than 225 drawings, photographs, and tables are included in the handbook.

Music Education for Teen-Agers. William R. Sur and Charles F. Schuller. New York: Harper & Brothers, 1958. Pp. xii + 478. $6.00.

This book, well illustrated with photographs, is concerned with the concept of music as a significant part of the education of all the pupils, not an isolated area of instruction. It deals with music as an art, a social force, and a therapy.

The authors give careful consideration to the use of audio-visual instruction materials, to practical teaching suggestions, to the expanding role of the teacher of music in the modern secondary school, and to the needs of both the beginning and experienced teacher.

The book also contains an unusually extensive, classified listing of instructional materials and equipment.

Dr. Sur is chairman of music education at Michigan State University, and Dr. Schuller is director of the audio-visual center at the same university.

Shaw on Education. Louis Simon. New York: Columbia University Press, 1958. Pp. xiii + 290. $5.50.

It is not new that George Bernard Shaw had definite views on education and government. What might be new to many is that central to Shaw's educational theories were their ultimate goal of preparing mankind for life in the playwright's idea of a truly democratic society.

The author has searched through Shaw's plays, prefaces, and political and economic tracts and analyzed them for comment on such matters as education of children, teaching the working classes, technical as opposed to liberal education, the dangers of the university tradition, and the state and education.

The dichotomy between Shaw's democratic aims and the sometimes dictatorial means he suggested for achieving them is carefully examined.

Talks with Teachers. Alice Keliher. Darien, Conn.: The Educational Publishing Corporation, 1958. Pp. 148. $2.95.

A collection of basic principles of modern education, this book focuses on elementary education. The author, who is professor of education at New York University and an authority on childhood education, discusses many of the problems that have confronted education in recent years.

Subject areas covered include: "Creativity or Conformity in Education," "Teachers Are People," "Creative Teaching in the Classroom," "Parents and Teachers as Partners," and "The Teacher and His Colleagues."

Mrs. Eleanor Roosevelt has written the foreword to the book.

Reflections on Learning. Howard Mumford Jones. New Brunswick, N. J.: Rutgers University Press, 1958. Pp. 97. $2.75.

"The joy of learning is not the ability to solve crossword puzzles and win money on television shows but the capacity to think greatly of man and about him and of the arts that best express him," states Dr. Jones in this short, learned book.

He writes about the process of learning—where it takes place, what it should mean, what it is for. He theorizes that if our sole purpose in education is to outstrip the Russians in training scientists and engineers, we stand in grave danger of warping the whole system of American education.

OTHER MATERIALS RECEIVED:

ELEMENTARY

Seeing through Arithmetic. Grades 3 through 6. Maurice L. Hartung, Henry Van Engen, Lois Knowles, and Catharine Mahoney. Chicago: Scott, Foresman and Company, 1959. Pp. 256 (Grade 3), 256 (Grade 4), 272 (Grade 5), and 288 (Grade 6). $2.32 (Grades 3-5), $2.56 (Grade 6). Teachers' Guides, $1.32 each.

Improving Children's Speech. Jack W. Birch, Jack Matthews, and Ernest Burgi. Cincinnati, Ohio: Public School Publishing Company, 1958. Pp. v + 46. $1.00.

Improving Children's Speech. Problem Solving. Alma Bingham. New York: Bureau of Publications, Teachers College, Columbia University, 1958. Pp. viii + 86. $1.00.

Science—Grades K-6; Magnetism and Electricity. New York: New York City Board of Education, 1959. Pp. xxiv + 39.

Preparation and Issuing of the Primary School Curriculum. Paris: Unesco, 1958. Pp. lxvi + 195. $2.75.

Teaching a Unit in Astronomy; Grades 1-9. J. Russell Smith. New York: Vantage Press, Inc., 1959. Pp. 149. $2.75.

SECONDARY

Our World Through the Ages. (Second Edition.) Nathaniel Platt and Muriel Jean Drummond. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959. Pp. 750. $5.36.

Exploring Home and Family Liv-

ing. Henrietta Fleck, Louise Fernandez, and Elizabeth Munves. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1959. Pp. xii + 395. $4.60.

Thorndike - Barnhart Advanced Junior Dictionary. Edited by E. L. Thorndike and Clarence L. Barnhart. Chicago: Scott, Foresman and Company, 1958. Pp. 946. $3.12. Edited for junior-high and upper-elementary grades.

Men and Nations; A World History. Anatole G. Mazour and John M. Peoples. Yonkers-on-Hudson, N. Y.: World Book Company, 1959. Pp. x + 790. $6.00. The book has 14 pages of maps in color and 32 pages of full-color picture supplements.

Living World History. T. Walter Wallbank and Arnold Fletcher. Chicago: Scott, Foresman and Company, 1958. Pp. 767. $4.88. Includes a 15-page full-color map section at the front of the book.

College

God Bless Our Queer Old Dean. W. Storrs Lee. New York: G. P. Putnam's Sons, 1959. Pp. 256. $3.95. The author has drawn on his own experiences plus interviews and correspondence with deans across the country to present an amusing and informative account of the complicated role of the college dean.

The College Influence on Student Character. Edward D. Eddy, Jr. Washington, D.C.: American Council on Education, 1959. Pp. xii + 185. $3.00.

Guidance

Careers in the Atomic Energy Industry. Harold L. Walker. **Instrument and Control Engineering.** Lloyd Slater. **Beauty Culture.** Miriam L. Sinclair. Cambridge, Mass.: Bellman Publishing Company, 1958. Pp. 32, 46, and 16. $1.00 each.

A Career in Pharmacology. Washington, D. C.: American Society for Pharmacology and Experimental Therapeutics, 1958. Pp. 32. Free.

Audio-Visuals

The Audio-Visual Equipment Directory. (Fifth Edition.) Edited by Henry C. Ruark, Jr., Fairfax, Va.: National Audio-Visual Association, Inc., 1959. Pp. 242. $4.75.

Solar Furnace. Developed by Strong Electric Corporation, Toledo, Ohio, for aid in teaching principles of solar energy. $69.50.

Salestalk, a portable sound-filmstrip A-V unit designed by Viewlex for use for small groups of students. Has a 9" x 12" screen fitted in back of the portable turntable case. Information available from Viewlex, Long Island City, N. Y.

Junior Science Static Electricity Kit. Includes "Fun with Static Electricity," listing 50 activities. Available from Science Materials Center, division of The Library of Science, 59 Fourth Ave., N. Y. $2.50 each.

New Closed-Circuit Television System, using a 15-pound camera that requires no special lighting and that will transmit to any standard home-type receiver, has been announced by Sylvania Home Electronics, division of Sylvania Electric Products, Inc., Batavia, N.Y.

The American Revolution. A series of six filmstrips in color designed for junior-high and senior-high schools. Based on **The American Revolution,** published by The American Heritage Publishing Co. Filmstrips available from Encyclopaedia Britannica Films, Inc., Wilmette, Ill. $36 for the set; $6.00, each filmstrip.

America the Beautiful. A 17" x 22" chart of full-color scenes from every state, including Alaska and Hawaii. Available from Sawyers, Inc., Portland, Ore. $.25 each. Discounts in quantity.

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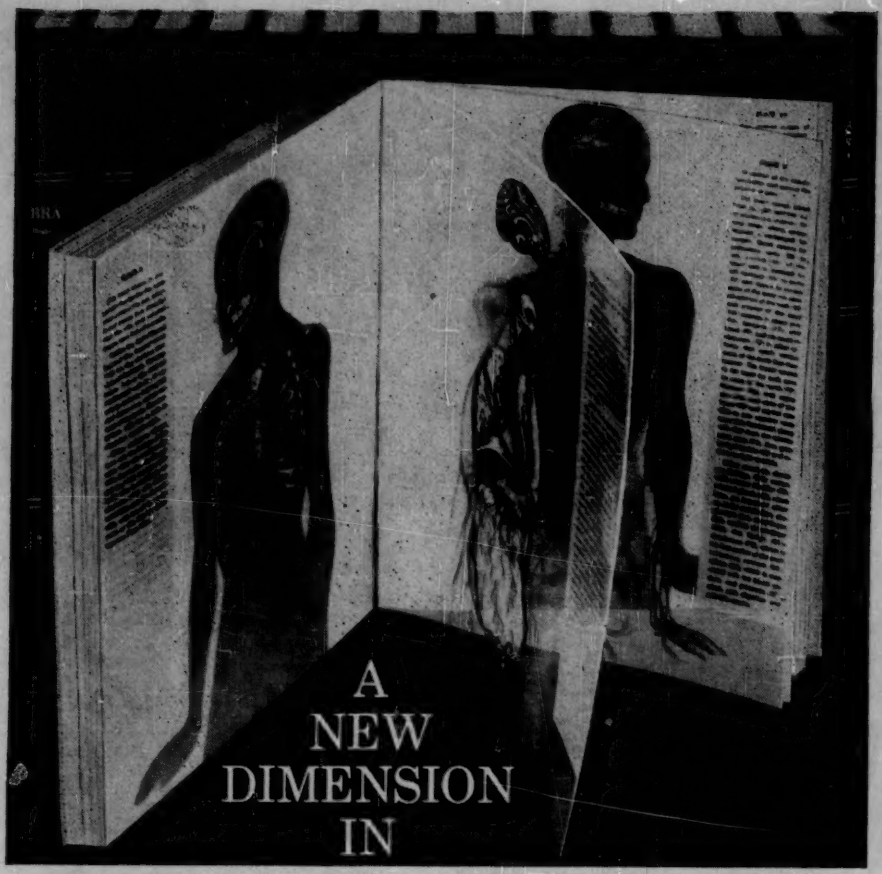

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